Revision of the sawflies described by Lothar Zirngiebl

(Preliminary studies for a catalogue of Symphyta, part 2)*

(Insecta, Hymenoptera, Symphyta)

By Stephan M. Blank

Blank, S. M. (1996): Revision of the sawflies described by Lothar Zirngiebl (Insecta, Hymenoptera, Symphyta). – Spixiana **19/2:** 195-219

Lothar Zirngiebl (1902-1973) proposed six new names for genera and subgenera and 64 new names for species and varieties of sawflies. These names and the corresponding types are revised and one new synonym for the genus group and 34 new synonymies for the species group are proposed: Cimbex Olivier, 1790 [Allocimbex Zirngiebl, 1953, syn. nov.]; Allantus balteatus (Klug, 1818) [Emphytus balteatus var. albimaculus Zirngiebl, 1937, syn. nov.; E. balteatus var. nigrolinearis Zirngiebl, 1937, syn. nov.]; Ametastegia equiseti (Fallén, 1808) [A. equiseti var. stitia Zirngiebl, 1954, syn. nov.]; Ametastegia carpini (Hartig, 1837) [Emphytus perla var. obscurus Zirngiebl, 1954, syn. nov.]; Brachythops flavens (Klug, 1816) [Selandria flavens var. antennalis Zirngiebl, 1954, syn. nov.; S. flavens var. flavissima Zirngiebl, 1961, syn. nov.]; Cimbex americana Leach, 1817 [Allocimbex obscura Zirngiebl, 1953, syn. nov]; Craesus varus (Villaret, 1832) [Croesus varus var. hermanni Zirngiebl, 1954, syn. nov.]; Dolerus aericeps (Thomson, 1871) [D. aericeps var. guttatus Zirngiebl, 1954, syn. nov.]; Dolerus germanicus (Fabricius, 1775) [D. pratensis var. major Zirngiebl, 1954, syn. nov.]; Elinora longipes (Konow, 1886) [Cuneala tricolor Zirngiebl, 1956, syn. nov]; Metallus lanceolatus (Thomson, 1870) [M. gei var. egregius Zirngiebl, 1963, syn. nov.]; Nematus similator Förster, 1854 [Pteronus eurysternus var. struvei Zirngiebl, 1939, syn. nov.]; Pontania herbaceae (Cameron, 1758) [Pontania enslini Zirngiebl, 1937, syn. nov.]; Pristiphora lativentris (Thomson, 1871) [Lygaeonematus pallipes var. femoralis Zirngiebl, 1953, syn. nov.]; Selandria serva (Fabricius, 1793) [S. serva var. punctata Zirngiebl, 1956, syn. nov.]; Tenthredo arcuata Forster, 1771 [Allantus arcuatus var. similans Zirngiebl, 1949, syn. nov.]; Tenthredo arcuata ssp. arcuata Forster, 1771 [Allantus sulphuripes var. selectus Zirngiebl, 1961, syn. nov.; A. sulphuripes var. tegularis Zirngiebl, 1949, syn. nov.]; Tenthredo brevicornis (Konow, 1886) [Allantus arcuatus var. atricereus Zirngiebl, 1937, syn. nov.; A. arcuatus var. luteipes Zirngiebl, 1961, syn. nov.; A. sulphuripes var. schneidi Zirngiebl, 1949, syn. nov.]; Tenthredo maculata ssp. maculata Geoffroy, 1785 [T. maculata var. collaris Zirngiebl, 1940, syn. nov.; T. maculata var. wagneri Zirngiebl, 1940, syn. nov.]; Tenthredo maculata ssp. diana Benson, 1968 [T. maculata var. coloris Zirngiebl, 1940 syn. nov.]; Tenthredo notha ssp. notha Klug, 1817 [Allantus arcutus var. media Zirngiebl, 1949, syn. nov.; A. arcuatus var. niger Zirngiebl, 1937, syn. nov.; A. sulphuripes var. fasciatus Zirngiebl, 1949, syn. nov.; A. sulphuripes var. fulvus Zirngiebl, 1949, syn. nov.]; Tenthredo sulphuripes ssp. sulphuripes (Kriechbaumer, 1869) [Allantus arcuatus var.nigrosulphureus Zirngiebl, 1937, syn. nov.; A. arcuatus var.sulphureoides Zirngiebl, 1949, syn. nov.; A. sulphuripes var. maculatus Zirngiebl, 1949, syn. nov.]; Tenthredo variabilis (Mocsary, 1909) [T. carolinae Zirngiebl, 1937, syn. nov.]; Tenthredo velox Fabricius, 1798 [T. velox var.alpina Zirngiebl, 1937, syn. nov.; T. velox var.nigripleuris Zirngiebl, 1937, syn. nov.]; Tenthredo vespa ssp. vespa Retzius, 1783 [Allantus vespa var. niger Zirngiebl, 1954, syn. nov.]. A short biography of Lothar Zirngiebl is presented.

Stephan M. Blank, Deutsches Entomologisches Institut (Projektgruppe Entomologie), Schicklerstraße 5, D-16225 Eberswalde.

^{*} Part 1 published by Taeger & Blank (1996, in press)



Fig. 1. The 65 years old Lothar Zirngiebl.

Biography

Lothar Zirngiebl (Fig. 1) was born on October 5th, 1902 in Freising (Germany, Bavaria). He went to school in Munich, Speyer and Ludwigshafen. In his youth he was encouraged by his father, Hermann Zirngiebl, to investigate sawflies. His father, who had worked at the Bavarian Station for Plant Protection and Plant Diseases in Weihenstephan for some time, published a first checklist of the Palatine sawflies in 1924. Zirngiebl took part in World War I as a volunteer, where he was wounded so badly by mustard gas, that he could not study medicine as intended. After two years attendance at teachers training college (1922/23) Zirngiebl became a teacher in Leistadt (Palatinate). In 1936 Zirngiebl got his graduation diploma due to his scientific publications. In World War II he served as a medical officer and a chemo-medical laboratory assistant. From 1949 onwards Zirngiebl taught the pupils of Birkenheide - during the first time after the war in huts - and led the school as the headmaster. Under his direction a new, modern school-house was built in Birkenheide. In 1962 he retired because of his shattered health and lived together with his wife Karla Zirngiebl in Himmelsthür near Hildesheim. After a long period of sickness Lothar Zirngiebl died on July 8th, 1973.

Introduction

The collection of Zirngiebl is housed at the Zoologische Staatssammlung in Munich. The present list summarizes all names, which Zirngiebl published for sawflies, and the available corresponding type material. The correct citations for the names are given and the taxonomic placement of the taxa is discussed. The publications of Zirngiebl were listed by Blank (1989). In an only publication on Vespidae Zirngiebl described five new varieties of Polistinae. Neither the type series nor the taxonomic placement of these taxa was checked within the present investigation. Blüthgen (1956) and J. Gusenleitner (pers. comm.) treat these taxa as colour forms with infrasubspecific rank.

The greater part of Zirngiebl's collection consists of sawfly species, which are (or were) distributed in the surrounding of his residences in the Palatinate (about 49°20'N 8°10'E). Sawflies from the Mediterranean area and Central Asia form the smaller part of the collection. Today Zirngiebl's collection is integrated in the main collection of the Zoologische Staatssammlung. Most type specimens are deposited at this museum, additional ones at the Naturhistorisches Museum, Vienna, at the Staatliches Museum für Naturkunde, Stuttgart, at the Musée Zoologique Cantonal, Lausanne, at the Zoological Museum, Helsinki, and at the Westfälisches Landesmuseum für Naturkunde, Münster.



Fig. 2. Specimens of Zirngiebl's handwritten and printed labels: a. *Cuneala tricolor* Zirngiebl, 1956 (holotype), the holotype label was written by W. Schedl; b. *Pontania kirchneri* Zirngiebl, 1959 (holotype); c. *Tenthredo maculata* var. *coloris* Zirngiebl, 1940 (lectotype), the second label from above is a cabinet label of Zirngiebl's collection.

Often the original descriptions of Zirngiebl's taxa lack data concerning the type locality or the size of the type series. In these cases lectotypes were designated. Here I referred to material from Zirngiebl's own collection at first, then to material from the other collections. Type specimens were examined to see, whether they agree with labelling and morphological characters given in the original description. If the genitalia were investigated, the preparations were subsequently gummed to a small piece of cardboard and pinned on the needle of the type.

Zirngiebl's work gives the impression that the author had no clear concept of the status of species, subspecies and varieties. Zirngiebl tended to describe forms from the Central European area, which were unknown to him, as varieties, whereas he described new forms from more distant localities as species. The term subspecies, as it is interpreted by most present authors, seems to be unknown to him or equivalent to the term variety, because Zirngiebl never described "ssp.". The labelling of the holotype of "Emphytus basalis var. masculus ssp. n. det. Zirngiebl" may show, how confused Zirngiebl's taxonomic concept was. Today in most cases it is impossible to verify, whether the author really meant subspecific or infrasubspecific rank. For that reason varietal names were reduced to infrasubspecific rank only in few evident or advisable cases. For the remaining varieties holotypes were labelled or lectotypes were fixed, and the validity of the taxa was checked.

Genus-group taxa

Zirngiebl (1930: 274-279) subdivided the tribe Dolerini [sic!] into three "Untergattungen" ['subgenera', translated from Zirngiebl 1930]: Hamatodentiden, Multidentiden and Nodulodentiden. In this connection Zirngiebl used "Untergattung" as a morphological and not a taxonomic term. This is indicated by the fact that Zirngiebl grouped specimens of both *Dolerus* Panzer, 1801, and *Loderus* Konow, 1890, as Hamatodentiden (p. 276). However, on page 280-281 of this publication, and in all

preceding and later publications Zirngiebl mentioned these two genera as seperate ones.

Zoological nomenclature is only applied to taxonomic units. Therefore the names Hamatodentiden, Multidentiden and Nodulodentiden are excluded from the provisions of the Code and not available (Art. 1 a, ICZN 1985).

Allocimbex Zirngiebl, 1953, syn. nov.

Zirngiebl, 1953. Mitt. Münch. ent. Ges., München 43: 234-235. Type species: *Allocimbex obscura* Zirngiebl, 1953 [= *Cimbex americana* Leach, 1817], designation by monotypy.

Taxonomic placement: Cimbex Olivier, 1790 (Cimbicidae).

Discussion: Zirngiebl mentions the claws lacking a subapical tooth as a prominent character of *Allocimbex*. The holotype of *A. obscura* just as each further male *C. americana* I have seen so far lacks this subapical tooth. *Allocimbex* is synonymous with *Cimbex* Olivier, 1790, due to the synonymy of *A. obscura* with *C. americana*.

Brachyocampa Zirngiebl, 1956

Zirngiebl, 1956. Mitt. Münch. ent. Ges., München 46: 323-325. Type species: *Eriocampa dorpatica* Konow, 1887, designation by monotypy (subgenus of *Eriocampa* Hartig, 1837).

Taxonomic placement: Eriocampa Hartig, 1837 (Tenthredinidae).

Discussion: According to Taeger (1986) the position of the cross vein in the anal cell of *Eriocampa dorpatica* is variable and thus not suitable for the characterization of a subgenus. Zirngiebl mentions a short saw sheath as a character of *E. dorpatica*. In comparison with *E. ovata* (Linné, 1761) the ovipositor of *E. dorpatica* is not shorter.

Cuneala Zirngiebl, 1956

Zirngiebl, 1956. Mitt. Münch. ent. Ges., München 46: 322, 325. Type species: *Cuneala tricolor Zirngiebl*, 1956 [= *Elinora longipes* (Konow, 1886)], designation by monotypy.

Taxonomic placement: Elinora Benson, 1946 (Tenthredinidae).

Discussion: According to Zhelochovtsev (1976, 1988) and Taeger (1991) *Cuneala* is identical with genus *Elinora*. The type species of *Cuneala*, *C. tricolor*, agrees with *Elinora longipes* (cf. discussion under *C. tricolor*).

Eurogaster Zirngiebl, 1953

Zirngiebl, 1953. Mitt. Münch. ent. Ges., München 43: 236. Type species: *Sciapteryx arctica* (Kiaer, 1898) [= *T. microps* (Konow, 1903)], by original designation.

Taxonomic placement: Tenthredo subgen. Eurogaster Zirngiebl, 1953 (Tenthredinidae).

Discussion: Zirngiebl mixed up several species in his genus *Eurogaster*, which are placed in *Tenthredo* subgen. *Eurogaster* (= *T. mesomela*-group), in the *Tenthredo arcuata*-group and in the *Rhogogaster picta*-group today.

Describing *Eurogaster*, Zirngiebl (1953) referred to a distinct couple of *Sciapteryx arctica* Kiaer [= *T. microps* (Konow, 1903)], which he received from W. Hellén. Zirngiebl retained one female specimen for his own collection. This specimen of *T. microps* is labelled as following: "Fennia Utsjoki Outakoski 26.6.1947 leg. Hellén"; [Hellén's handwriting:] "*Sciapteryx arctica* Kiaer Hellén det."; [cabinet label, Zirngiebl's handwriting:] "*Eurogaster arctica* Kiaer". *S. arctica* (Kiaer, 1898) is the type species of *Eurogaster*. Zhelochovtsev (1976, 1988) and Taeger (1992) use *Eurogaster* as a subgenus of *Tenthredo* Linnaeus, 1758, for the former *T.-mesomela-g*roup. In the context of the original description Zirngiebl

(1953) discussed, whether *R. picta* has to be treated as a member of this genus, too. Later Zirngiebl (1954) erronously treated "*Eurogaster* (*Rhogogaster*) picta" as the type species of *Eurogaster*, although he had fixed *S. arctica* Kiaer as the type species. Today picta (Klug, 1817) is treated as a member of the *Rhogogaster picta*-group (Benson 1947, 1952, Taeger 1992). Zirngiebl (1953) also mentioned a female specimen of "*Eniscia arctica* C. G. Thom." [= *Tenthredo arctica* (Thomson, 1870)] which was collected in Central Asia by Zugmayer in 1906. This species is not a member of *Tenthredo* subgen. *Eurogaster*. Probably *T. arctica* (Thomson) is a species of the *Tenthredo arcuata-schaefferi*-group.

Pseudocephaleia Zirngiebl, 1937

Zirngiebl, 1937. Festschr. 60. Geb. Strand, Riga 3: 339-340. Type species: *Pseudocephaleia brachycerus* Zirngiebl, 1937 [= *P. praeteritorum* (Semenov, 1934)], designation by monotypy.

Taxonomic placement: Pseudocephaleia Zirngiebl, 1937 (Pamphiliidae).

Discussion: *Pseudocephaleia* is a valid genus, which contains two species: *P. praeteritorum* (Semenov, 1934) and *P. zuvandica* Ermolenko, 1993 (Achterberg & Aartsen 1986, Ermolenko 1993).

Selandropha Zirngiebl, 1956

Zirngiebl, 1956. Mitt. Münch. ent. Ges., München 46: 322. Type species: *Selandria stramineipes* (Klug, 1816) [= *Aneugmneus padi* (Linné, 1761)], by original designation (subgenus of *Selandria* Leach, 1817). Taxonomic placement: *Aneugmenus* Hartig, 1837 (Tenthredinidae).

Discussion: Zirngiebl (1956) placed the following species in his new subgenus: "S. stramineipes Klg. [= Aneugmenus padi (Linné, 1761)], temporalis C. G. Th., morio F. und vielleicht auch ['and perhaps also'] fuerstenbergensis Knw. [...] (Typ = Sel. stramineipes Klg.)". In the original description Hartig (1837) mentioned A. coronatus (Klug, 1818) as the only species of Aneugmenus. Today the species padi and temporalis also belong to Aneugmenus, morio is a species of Nesoselandria Rohwer, 1910 [= Melisandra Benson, 1939] and fuerstenbergensis a species of Atoposelandria Enslin, 1913 [= ?Aneugmenus]. The synonymy of Selandropha with Aneugmenus proposed by Zombori (1981) is correct.

Species-group taxa

Acantholyda parvula Zirngiebl, 1937

Zirngiebl, 1937. Festschr. 60. Geb. Strand, Riga 3: 340-342, 9, loc. typ.: Lower Austria, ?Prater. Taxonomic placement: *Acantholyda laricis* (Giraud, 1861).

Holotype: \mathcal{P} , Niederösterreich [= Lower Austria], ?Prater, leg. Michel.

Deposition according to Zirngiebl (1937): Naturhistorisches Museum, Vienna.

Discussion: The holotype could not be found. Achterberg and Aartsen (1986) who synonymized *A. parvula* with *A. laricis*, have already supposed that the type specimen is lost.

Allantus antigae var. atroscutellatus Zirngiebl, 1937

Zirngiebl, 1937. Festschr. 60. Geb. Strand, Riga 3: 346, ♀, loc. typ.: Spain, Cordoba.

Taxonomic placement: Elinora baetica (Spinola, 1843).

Lectotype (hereby designated): \(\text{?}, \) "Hispania, Cordoba"; "Allantus contiguus Kon.?"; "A. antigae Knw. var. nov. atroscutellata, det. Zirngiebl"; "Elinora baetica \(\text{?} \) Dét. J. Lacourt"; [red:] "Lectotypus \(\text{?} \) Allantus antigae var. atroscutellatus Zirngiebl, 1937 des. S. M. Blank 1993". The lectotype is in good condition.

Paralectotypes: Two further ♀♀ from Cordoba, 3♀♀ from Utrera.

Deposition: Lectotype in Zoologische Staatssammlung, Munich, paralectotypes in Zoologische

Staatssammlung, Munich, and Naturhistorisches Museum, Vienna.

Discussion: According to Lacourt (1991), who investigated part of the type series, the taxon is identical with *Elinora baetica*.

Allantus arcuatus var. atricereus Zirngiebl, 1937, syn. nov.

Zirngiebl, 1937. Festschr. 60. Geb. Strand, Riga 3: 345, &, loc. typ.: Germany, Speyer. *Allantus arcuatus* var. *atricerus* Zirngiebl, 1937. Festschr. 60. Geb. Strand, Riga 3: 346, err. typ. Taxonomic placement: *Tenthredo brevicornis* (Konow, 1886).

Lectotype (hereby designated): 3, "Speyer, V.21"; [red:] "Lectotypus 3 Allantus arcuatus var. atricereus Zirngiebl 1937 des. S. M. BLANK 1993"; "Tenthredo brevicornis (Knw.) det. S. M. Blank '91". The lectotype is in good condition. Deposition: Zoologische Staatssammlung, Munich.

Discussion: When establishing the new variety, Zirngiebl used the name *atricereus* (p. 345), on the following page and in a subsequent publication (1954: 131) the incorrect spelling "*atricerus*" (err. typ.). Zirngiebl (1954) used "*atricerus*" in connection with *T. sulphuripes* (Kriechbaumer, 1869), too. The single male specimen can be assigned to *T. brevicornis* (Konow, 1886).

Allantus arcuatus var. luteipes Zirngiebl, 1961, syn. nov.

Zirngiebl, 1961. Mitt. Pollichia pfälz. Ver. Naturk. Nat.Schutz, Bad Dürkheim N. F. 3, 8: 186, \$\varphi\$, loc. typ.: Germany, Birkenheide. Infrasubspecific name according to Art. 16 and 45 f ICZN (1985). Taxonomic placement: *Tenthredo brevicornis* (Konow, 1886).

"Type": $\,^{\circ}$, "Birkenheide Pfalz 25.5.1955 coll. Zirngiebl"; "Allantus arcuatus v. melanoxyston Ensl. aber: Beine fast ganz gelb"; "Allantus arcuatus v. luteipes Zrg"; "Typus' $\,^{\circ}$ Allantus arcuatus var. luteipes Zirng. 1961 teste S. M. Blank 1993, infrasubspezifischer Name!"; "Tenthredo brevicornis Knw. $\,^{\circ}$ det. Blank '89".

Deposition: Zoologische Staatssammlung, Munich.

Discussion: The name "var. *luteipes* Zirngiebl, 1961" is not available, because it was described as a variety after 1960 (Art. 16 and 45 f ICZN 1985). The "type" specimen agrees with *Tenthredo brevicornis*.

Allantus arcuatus var. media Zirngiebl, 1949, syn. nov.

Zirngiebl, 1949. Mitt. Münch. ent. Ges., München 35-39: 287-290, &, loc. typ.: Germany, Starnberg. Taxonomic placement: *Tenthredo notha* ssp. *notha* Klug, 1817.

Lectotype (hereby designated): &, "Starnberg a. See Stöcklein 21.7.38"; [red:] "Lectotypus & *Allantus arcuatus* var. *media* Zirngiebl, 1949 des. S. M. BLANK 93"; "*Tenthredo n. notha* Klug & det. Blank". The lectotype is in good condition. Paralectotypes: 2&& from the same locality as the lectotype.

Deposition: Zoologische Staatssammlung, Munich.

Discussion: A. arcuatus var. media represents a very dark coloured form of T. notha ssp. notha.

Allantus arcuatus var. niger Zirngiebl, 1937, syn. nov.

Zirngiebl, 1937. Festschr. 60. Geb. Strand, Riga 3: 345-346, &, loc. typ.: Lower Austria, Gass. Taxonomic placement: *Tenthredo notha* ssp. *notha* Klug, 1817.

Lectotype (hereby designated): δ , "1.8.04, Gass"; "Allantus arcuatus var. nov. niger, det. Zirngiebl"; [red:] "Lectotypus δ Allantus arcuatus var. niger Zirngiebl, det. Blank 1991"; "Tenthredo notha notha Klug δ , det. Blank '89". The lectotype is in good condition.

Deposition: Naturhistorisches Museum, Vienna.

Discussion: The locus typicus "Niederösterreich" (Zirngiebl 1937) cannot be drawn from the labelling of the lectotype. Despite that fact the single male specimen is hereby designated as the lectotype, because it agrees with the characters given in the original description and because of its labelling as "var. nov.". The single male specimen represents *Tenthredo notha* ssp. *notha*.

Allantus arcuatus var. nigrosulphureus Zirngiebl, 1937, syn. nov.

Zirngiebl, 1937. Festschr. 60. Geb. Strand, Riga 3: 345-346, \(\begin{align*} \text{, loc. typ.: Lower Austia, Goggendorf.} \end{align*} \) Taxonomic placement: Tenthredo sulphuripes ssp. sulphuripes (Kriechbaumer, 1869).

Lectotype (hereby designated): Q, "Austria inf., R Goggendorf, 13.8.16, Zerny"; "A. arcuatus var. nov. nigrosulphureus, det. Zirngiebl"; [red:] "Holotype ♀ Allantus arcuatus var. nigrosulphureus Zirngiebl 1937 det. S. M. Blank 1991"; "Tenthredo sulphuripes (Krbm.) ♀ det. Blank 1988, melanist. Form". The type specimen is in good condition.

Deposition: Naturhistorisches Museum, Vienna.

Discussion: Zirngiebl related this form to the colour varieties of sulphuripes and described nigrosulphureus due to the peculiar body colouration. The specimen represents a melanistic form of T. sulphuripes ssp. sulphuripes. Contrary to the dark coloured T. sulphuripes, which has been reported by Tagger (1984), this female specimen possesses yellow scapi and scutellum. The light colouration of the abdomen is reduced to a large yellow band on the first tergite, a very small one on the fifth, and small lateral spots on 2.-4. and 6. tergites. The 7. and 8. tergites are coloured yellow medially. The yellow stripe on the mesepisternum is missing. The posterior femora have each a small apical brownish spot.

Allantus arcuatus var. similans Zirngiebl, 1949, syn. nov.

Zirngiebl, 1949. Mitt. Münch. ent. Ges., München 35-39: 285, 290, \(\sigma\), loc. typ.: Iran, Elburs-Mountains, Tanakarud.

Taxonomic placement: Tenthredo arcuata Forster, 1771.

Lectotype (hereby designated): ♀, "Tacht i Suleiman Särdab-Tal (Tanakarud) 29-3200m 19.-23.7.37 E. Pfeiffer & W. Forster"; "Persia sept. Elburs mts. c. s."; [handwriting of Külhorn:] "Tenthredo arcuata v. similans Zirng. Q det. Zirng. Staatssamml. München"; "Tenthredo schaefferi f. perkinsi Q det. R. B. Benson 1956"; [red:] "Lectotypus Q Allantus arcuatus var. similans Zirngiebl 1949 des. S. M. Blank (1991)"; "Tenthredo arcuata similans Zrng. ♀ det. Blank 91". The lectotype is in good condition.

Paralectotypes: 499 from the same locality and from Hecercal (3500 m NN).

Deposition: Zoologische Staatssammlung, Munich.

Discussion: A. arcuatus var. similans represents a dark form of Tenthredo arcuata. Scapus, pedicellus and the greater part of the tegulae are completely black, the scutellum is yellow on the anterior half, the light lateral abdominal stripe is interrupted on the anterior sides of the tergites 1-3 (1-7) with black. Body length 10.7-11.8 mm, minimum ventro-ocular distance 0.35-0.4 times as long as the distance between the antennal sockets, upper side of head shining between scattered punctures, longest setae on upper side of the head 1.4-1.7 times as long as diameter of the frontal ocellus [1.3-1.6 in T. arcuata ssp. arcuata, 1.4-2.0 in T. arcuata ssp. korabica (Csiki, 1922)], praescutum rugose medially between fine punctures, hypopygium excised as shown in fig. 37 by Taeger (1985).

Morphologically A. arcuatus var. similans looks rather similar to Central European specimens of T. arcuata ssp. arcuata. There is a large variation in colour and in morphological characters among Tenthredo arcuata s. l. specimens from Turkey, Caucasus Mountains and Iran (cf. Taeger 1988). At the moment it is impossible to decide, whether A. arcuatus var. similans (just as T. arcuata ssp. korabica!) is a modification of *T. arcuata* ssp. arcuata or a valid subspecies. Benson (1959), who investigated at least one syntype, cites specimens from the type locality as T. schaefferi forma perkinsi (Morice, 1919)

[= T. notha ssp. notha].

Allantus arcuatus var. sulphureoides Zirngiebl, 1949, syn. nov.

Zirngiebl, 1949. Mitt. Münch. ent. Ges., München 35-39: 287-290, 3, loc. typ.: Germany, Würzburg. Taxonomic placement: Tenthredo sulphuripes ssp. sulphuripes (Kriechbaumer, 1869).

Holotype: ♂, Würzburg, leg. Zwecker.

Discussion: The holotype of A. arcuatus var. sulphureoides is probably lost. The characterization of sulphureoides in a key by Zirngiebl (1949) corresponds well with the description of melanic specimens of T. sulphuripes by Taeger (1984).

Allantus costatus var. obscurus Zirngiebl, 1937

Zirngiebl, 1937. Festschr. 60. Geb. Strand, Riga 3: 347, $\mathfrak{P}\mathfrak{F}$, loc. typ.: Serbia, Vitkovac. Preoccupied in *Tenthredo* by Gmelin, 1790 [= T. atra Linné, 1758].

Taxonomic placement: Tenthredo costata Klug, 1817.

Lectotype (hereby designated): \$\partial \text{, "Vitkovac Serbien"; "Type Coll. L. Zirngiebl"; [red:] "Lectotypus \$\partial \text{Allantus costatus var. obscurus Zirngiebl 1937 des. S. M. Blank (1991)"; "Tenthredo costata Klug, 1814\$\partial \text{det. Blank '91"}. The type specimen is in good condition.

Paralectotypes: 299, 18, from Vitkovac (Serbia) and Herkulesbad.

Deposition: Lectotype in Zoologische Staatssammlung, Munich, Paralectotypes in Zoologische Staatssammlung, Munich, and Naturhistorisches Museum, Vienna.

Discussion: Among the collection of Zirngiebl there are 399 and 16 T. costata from Vitkovac and Herkulesbad. One female specimen, which has been designated as the lectotype of A. costatus var. obscurus, fits roughly with the description, because its pronotum bears only two tiny yellow spots. The paralectotypes have more extensively yellow pronota (cf. Taeger 1984). A. costatus var. obscurus was synonymised with T. costata by Taeger (1984).

Allantus marginellus var. melanomerus Zirngiebl, 1942

Zirngiebl, 1942. Mitt. Pollichia pfälz. Ver. Naturk. Nat. Schutz, Bad Dürkheim N. F. 2, 10: 100, \$\varphi\$, loc. typ.: Germany, Landau.

Taxonomic placement: Tenthredo marginella ssp. marginella Fabricius, 1793.

Lectotype (hereby designated): $\$, "Landau-Pfalz am 8.VIII.38 Coll. Zirngiebl"; "marginellus var. melanomerus Zrg."; [red:] "Lectotypus $\$ Allantus marginellus var. melanomerus Zirngiebl 1942 des. S. M. Blank (1991)"; "Tenthredo marginella F. $\$ det. Blank". The tarsus of the right hind leg is missing.

Deposition: Zoologische Staatssammlung, Munich.

Discussion: According to Taeger (1988) *A. marginellus* var. *melanomerus* is a junior synonym of *T. marginella*. The taxon is not homonymous with *A. omissa* var. *melanomeros* Enslin, 1912 [= *T. omissa* (Förster, 1844)].

Allantus marginellus var. nigroscutellatus Zirngiebl, 1942

Zirngiebl, 1942. Mitt. Pollichia pfälz. Ver. Naturk. Nat.Schutz, Bad Dürkheim N. F. 2, 10: 100, ?�ð, loc. typ.: ? Germany.

Allantus marginellus var. nigroscutellaris Zirngiebl, 1954. Mitt. Pollichia pfälz. Ver. Naturk. Nat. Schutz, Bad Dürkheim N. F. 3, 2: 130, nomen nudum.

Taxonomic placement: Tenthredo marginella ssp. marginella Fabricius, 1793.

Discussion: Zirngiebl characterized A. marginellus var. nigroscutellatus by the black scutellum and the yellow marked mesepisterna. No type specimen could be found for this taxon. Taeger (1988) synonymised A. marginellus var. nigroscutellatus and Tenthredo marginella ssp. marginella. He examined one female specimen, which has been labelled as the type by Zirngiebl, but which was collected in 1944, two years after the description of the taxon. In the original description data concerning the type locality and the size of the type series are missing. Zirngiebl (1954) cited A. marginellus var. nigroscutellaris which he characterized by a completely black scutellum, too. No type specimen could be found. Probably this name is a type error of A. marginellus var. nigroscutellatus.

Allantus sulphuripes var. fasciatus Zirngiebl, 1949, syn. nov.

Zirngiebl, 1949. Mitt. Münch. ent. Ges., München 35-39: 287-290, 3, loc. typ.: Germany, Landau. Preoccupied in *Tenthredo* by Scopoli, 1763 [= *Tenthredo zonula* Klug, 1817].

Taxonomic placement: Tenthredo notha ssp. notha Klug, 1817.

Lectotype (hereby designated): δ, "Landau-Pfalz am 5.VIII.39 Coll. Zirngiebl"; "Allantus arcuatus oder sulphuripes [...] var. nov. fasciatus"; [red:] "Lectotypus δ Allantus sulphuripes var. fasciatus Zirngiebl, 1949 des. S. M. BLANK 1993"; "Tenthredo n. notha Kl. δ det. Blank '89". The greater part of the legs and the antenna of the right body side are missing. Deposition: Zoologische Staatssammlung, Munich.

Discussion: The single specimen represents an abnormally light- coloured male specimen of *T. notha* ssp. *notha* Klug, 1817, with even terga 3-5 completely yellow.

Allantus sulphuripes var. fulvus Zirngiebl, 1949, syn. nov.

Zirngiebl, 1949. Mitt. Münch. ent. Ges., München 35-39: 287-290, &, loc. typ.: Austria, Lassee. Preoccupied in *Tenthredo* by Retzius, 1783 [= *Pamphilius betulae* (Linné, 1758)].

Taxonomic placement: Tenthredo notha ssp. notha Klug, 1817.

Lectotype (hereby designated): &, "Austria inf. R Lassee 25.8.16 Zerny"; "1338"; "Gruppe: sulphurip. form: fulvus"; [red:] "Lectotypus & Allantus sulphuripes var. fulvus Zirngiebl, 1949 des. S. M. BLANK 1993"; "Tenthredo n. notha (Klug) & det. Blank '89". The lectotype is in good condition.

Deposition: Zoologische Staatssammlung, Munich.

Discussion: The legs of *A. sulphuripes* var. *fulvus* are extremly light coloured. The single specimen represents *T. notha* ssp. *notha* and not *T. schaefferi* (Klug, 1814) because of the body length (9,4 mm) and the light coloured tegulae.

Allantus sulphuripes var. maculatus Zirngiebl, 1949, syn. nov.

Zirngiebl, 1949. Mitt. Münch. ent. Ges., München 35-39: 287-290, ♀, loc. typ.: Germany, Leistadt-Dürkheim. Preoccupied in *Tenthredo* by Geoffroy, 1785 [= *T. maculata*].

Taxonomic placement: Tenthredo sulphuripes ssp. sulphuripes (Kriechbaumer, 1869).

Lectotype (hereby designated): \$\, \text{"Leistadt-Dürkheim am Coll. L. Zirngiebl"; [red:] "Lectotypus \$\, Allantus \text{sulphuripes var. maculatus Zirngiebl, 1949 des. S. M. BLANK 93"; "Tenthredo sulphuripes (Krbm.) \$\, \text{det. Blank"}. The lectotype is in good condition.

Deposition: Zoologische Staatssammlung, Munich.

Discussion: Zirngiebl described *A. sulphuripes* var. *maculatus* because of the yellow-marked side lobes of the mesonotum. According to Taeger (1984) this colouration occurs now and then in *T. sulphuripes*.

Allantus sulphuripes var. schneidi Zirngiebl, 1949, syn. nov.

Zirngiebl, 1949. Mitt. Münch. ent. Ges., München 35-39: 287-290, $\,^{\circ}$, loc. typ.: Germany, Bamberg-Ebing.

Taxonomic placement: Tenthredo brevicornis (Konow, 1886).

Lectotype (hereby designated): ♀, "Bamberg Ebing 17.7.35 Schneid"; [red:] "Lectotypus ♀ *Allantus sulphureipes* var. *schneidi Z*irngiebl 1949 des. S. M. Blank (1991)"; "*Tenthredo brevicornis* Knw. det. Blank '89". The lectotype is in good condition.

Deposition: Zoologische Staatssammlung, Munich.

Discussion: On page 287 Zirngiebl (1949) described three new varieties in one sentence. In this context the gender of the type specimen of *A. sulpuripes* var. *schneidi* remains unclear, because the description of the new taxon is very short. The following remark "auch 18" ['also 18'; translated from Zirngiebl 1949] is related to var. *fulvus*, not to var. *schneidi*. Besides the lectotype from Bamberg three more female specimens from Leistadt, Landau and Ebermannstadt are preserved in the collection of Zirngiebl which all resemble *T. brevicornis*. The female specimen from Bamberg was designated as the lectotype, because it is the only one that was collected by Schneid. *A. sulphuripes* var. *schneidi* corresponds well with *T. brevicornis*.

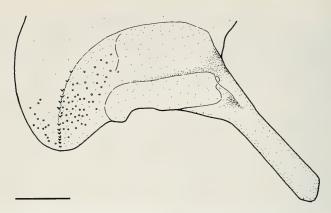


Fig. 3. Penis valve of *Allocimbex obscura* Zirngiebl, 1953 (holotype) [=*Cimbex americana* Leach, 1817]. The penis valve was drawn from the remaining parts of the destroyed genitalia. The dorsal part of the valve is lost. Bar = 300 µm.

Allantus sulphuripes var. selectus Zirngiebl, 1961, syn. nov.

Zirngiebl, 1961. Mitt. Pollichia pfälz. Ver. Naturk. Nat.Schutz, Bad Dürkheim N. F. 3, 8: 186, 3. Infrasubspecific name according to Art. 16 and 45f ICZN (1985).

Taxonomic placement: Tenthredo arcuata ssp. arcuata Forster, 1771.

"Type": 13, from Landau.

Deposition: Zoologische Staatssammlung, Munich.

Discussion: The name var. *selectus* is not available, because it was described as a variety after 1960 (Art. 16 and 45 f ICZN 1985). The "type" specimen agrees with *T. arcuata* ssp. *arcuata*.

Allantus sulphuripes var. tegularis Zirngiebl, 1949, syn. nov.

Zirngiebl, 1949. Mitt. Münch. ent. Ges., München 35-39: 289, ♂, loc. typ.: Ratzes.

Taxonomic placement: Tenthredo arcuata ssp. arcuata Forster, 1771.

Lectotype (hereby designated): &, "Ratzes Kohl"; [red:] "Lectotypus & Allantus sulphureipes var. tegularis Zirngiebl 1949 des. S. M. Blank (1991)"; "Tenthredo arcuata Forster det. Blank 91". The lectotype is in good condition.

Paralectotype: 13 from "Piora VI.04 Fischer".

Deposition: Zoologische Staatssammlung, Munich.

Discussion: *A. sulpuripes* var. *tegularis* represents a very dark form of *T. arcuata* ssp. *arcuata*. The paralectotype probably represents *T. arcuata korabica* (Csiki, 1923).

Allantus vespa var. niger Zirngiebl, 1954, syn. nov.

Zirngiebl, 1954. Mitt. Pollichia pfälz. Ver. Naturk. Nat.Schutz, Bad Dürkheim N. F. 3, 2: 130, 3, loc. typ.: Germany, Baden. Preoccupied in *Allantus* Jurine, 1801, by Zirngiebl, 1937 [= *Tenthredo notha* ssp. *notha* Klug, 1817].

Taxonomic placement: Tenthredo vespa Retzius, 1783.

Holotype: &, "Baden, 12. Aug. 92" (Alfken, 1937).

Discussion: Alfken (1937) cites an "Allantus vespa var. niger Zirng," (nomen nudum). Zirngiebl (1954) refers to Alfken and describes the taxon shortly: "mit Verdunkelungen an Antennen und Thorax" ['with darkened antenna and thorax'; translated from Zirngiebl 1954]. Type specimens A. vespa var. niger could not be found. According to Taeger (1988) A. vespa var. niger is probably a synonym of the variably coloured T. vespa.

Allocimbex obscura Zirngiebl, 1953, syn. nov.

Zirngiebl, 1953. Mitt. Münch. ent. Ges., München 43: 234-235, 3, loc. typ.: unknown. Taxonomic placement: *Cimbex americana* Leach, 1817.

Holotype: &, "Sammlung A. Förster"; "Cimbex sp. n. & E. Clément det."; "Allocimbex n. gen. obscura n. sp. Det. Zirng."; [red:] "Holotypus & Allocimbex obscura Zirngiebl 1953 det. S. M. Blank (1991)"; "Cimbex americana Leach & det. S. M. Blank 94". The holotype is in bad condition. The following parts of the holotype are missing: left flagellum, anterior tarsi, two apical segments of the left median tarsus, apical four segments of both hind tarsi, parts of the right anterior wing, parts of the genitalia.

Deposition: Zoologische Staatssammlung, Munich.

Discussion: *A. obscura* is synonymous with *C. americana* which is a widespread species in northern America (cf. discussion under *Allocimbex*). Probably Förster received this specimen, when he exchanged material with Ashmead. The reconstruction of the penis valve drawn from the remaining parts is shown in figure 3.

Amasis obscura var. adusta Zirngiebl, 1953

Zirngiebl, 1953. Mitt. Münch. ent. Ges., München 43: 235, ♀, loc. typ.: Spain, Baños.

Taxonomic placement: Corynis spec.

Holotype: $\,^{\circ}$, "Baños VI-07 Dusmet"; "Sammlung Dr. Enslin"; "Amasis n. sp. $\,^{\circ}$ Dr. Enslin det."; "Flügel stark verdunkelt"; "Amasis obscurus v. adustus Zg. $\,^{\circ}$ "; [red:] "Holotype $\,^{\circ}$ Amasis obscura var. adusta Zirngiebl 1953 det. Blank (1989)". The right anterior tibia and tarsus are missing.

Deposition: Zoologische Staatssammlung, Munich.

Discussion: Presently *A. obscura* var. *adusta* can neither be assigned to a valid species of *Corynis* Thunberg, 1789, nor its validity can be confirmed.

Amauronematus maidli Zirngiebl, 1937

Zirngiebl, 1937. Festschr. 60. Geb. Strand, Riga 3: 336-337, ♀, loc. typ.: Kroatia, Istria. Taxonomic placement: *?Pontania* spec.

Holotype: ♀, "Istrien, coll. Graeffe"; "Amauronem. maidli Type ♀ O. Conde det. 1939 berichtigt!"; "Nematus anomalopterus Först. O. Conde det. 1939"; "Amauronematus minutus nov. spec. det. Zirngiebl"; [red:] "Holotypus ♀ Amauronematus maidli Zirngiebl det. S. M. Blank '89". The flagella of both antennae are missing.

Deposition: Naturhistorisches Museum, Vienna.

Discussion: The holotype disagrees with the original description in having a clypeus, which is trapeziformly excised at about one third of its length. Conde never published the synonymy of *A. maidli* with *Nematus anomalopterus* Förster, 1854. Muche (1975) treats *A. maidli* as a valid species, but probably he never investigated the type specimen itself. Zirngiebl did not publish "*Amauronematus minutus*", the name is a nomen in litteris. Probably the species belongs to *Pontania* Costa, 1852.

Ametastegia equiseti var. stitia Zirngiebl, 1954, syn. nov.

Zirngiebl, 1954. Mitt. Pollichia pfälz. Ver. Naturk. Nat. Schutz, Bad Dürkheim N. F. 3, 2: 183, loc. typ.: probably Germany, Palatinate.

Taxonomic placement: Ametastegia equiseti (Fallén, 1808).

Discussion: The original description is missing data concerning type locality, gender of the type specimen(s) and size of the type series. No type specimens of *A. equiseti* var. *stitia* could be found. Zirngiebl described this variety from one or several specimens, whose radial cross vein and third cubital cross vein meet at the same point on the radius. Such specimens frequently occur among series of *A. equiseti*.

Aprosthema melanopyga Zirngiebl, 1937

Zirngiebl, 1937. Festschr. 60. Geb. Strand, Riga 3: 344, &, loc. typ.: China, Nanking. Taxonomic placement: *Aprosthema melanopyga* Zirngiebl, 1937.

Holotype: &, "Nanking Dr. Jettner III-IV.1931"; "Aprosthema melanopyga n. sp. (mihi) det. Zirngiebl"; [red:] "Holotypus & Aprosthema melanopyga Zirngiebl det. S. M. Blank (1989)". Two tarsomeres of the right median leg are missing. Deposition: Naturhistorisches Museum, Vienna.

Discussion: *A. melanopyga* is characterized as follows: posterior tibiae without subapical spurs, tarsal claws simple, costal cross vein distinct, cubital cross veins indistinct, the second cubital cell much longer than the third. Fig. 4 shows the wings of the right body side. In Malaise's key (1941) *A. melanopyga* runs to *Copidoceros* Forsius, 1921 [= *Aprosthema* Konow, 1899, according to Abe and Smith 1991]. In contrast to Malaise's characterization of *Copidoceros* the antenna of the holotype are longer than the greatest width of the head.

Aprosthema contains numerous taxa whose status is still open. Therefore a decision about the status of both *A. melanopyga* and *A. pachycephala* shall be left to an indispensable revision of *Aprosthema*.

Aprosthema pachycephala Zirngiebl, 1937

Zirngiebl, 1937. Festschr. 60. Geb. Strand, Riga 3: 352-355, \mathfrak{P} , loc. typ.: Germany, Ruchheim. Taxonomic placement: *Aprosthema pachycephala* Zirngiebl, 1937.

Holotype: ⁹, "Type Coll. L. Zirngiebl"; "Ruchheim-Pfalz den VI.28 Coll. Zirngiebl"; "Aprosthema pachycephala mihi!"; [red:] "Holotypus ⁹ Aprosthema pachycephala Zirngiebl 1937 det. S. M. Blank (1989)". The right hind tarsus is missing.

Deposition: Zoologische Staatssammlung, Munich.

Discussion: cf. A. melanopyga.

Croesus varus var. hermanni Zirngiebl, 1954, syn. nov.

Zirngiebl, 1954. Mitt. Pollichia pfälz. Ver. Naturk. Nat.Schutz, Bad Dürkheim N. F. 3, 2: 165, \$\varphi\$, loc. typ.: Germany, Landau. Infrasubspecific name according Art. 45 g ICZN (1985).

Taxonomic placement: Craesus alniastri (Scharfenberg, 1805).

"Type": ♀, "Landau-Pfalz am 21.VI.31 Coll. Zirngiebl"; "F1 ex L. Zucht Nr. 172 Coll. Zirngiebl"; "Type Coll. L. Zirngiebl"; [red:] "Keine Type! Name nicht verfügbar! S. M. Blank '92"; "Croesus varus (Villaret) ♀ det. Blank '91". Deposition: Zoologische Staatssammlung, Munich.

Discussion: 'The specimen derived from a rearing of many hundred larvae' (translated from Zirngiebl 1954), according to the label from the F1-generation. In contrast to the rest of the reared *C. varus*, Zirngiebl described this single female specimen because of its lighter colouration and the aberrant veins in the anterior wing. The name *Croesus varus* var. *hermanni* is of infrasubspecific rank (Art. 45 g ICZN 1985). *C. varus* is a junior synonym of *C. alniastri* (Scharfenberg, 1805) (cf. Taeger & Blank 1996, in press).

Cuneala tricolor Zirngiebl, 1956, syn. nov.

Zirngiebl, 1956. Mitt. Münch. ent. Ges., München 46: 322-325, \mathfrak{P} , loc. typ.: Iran, Rescht, Tahergourabe. Preoccupied in *Elinora* by Kriechbaumer, 1869 [= *Elinora algeriensis* (Magretti, 1886)].

Taxonomic placement: Elinora longipes (Konow, 1886).

Holotype: $\,^{\circ}$, "Iran (Recht) Tahergourabe (feucht) 0 m 14.4.1950 F. Schäuffele leg."; "?*Allantus* spec. Det. Zirngiebl 1955 (Cuneala tricolor m.)"; "*Tenthredo* (*Cuneala*) *longipes* Konow determ. Muche 1983"; "Pr.Nr. 394 fec. W. Schedl 87"; [red, Schedl teste:] "Holotypus $\,^{\circ}$ Cuneala tricolor Zirngiebl"; "*Tenthredo* (*Elinora*) *longipes* Konow $\,^{\circ}$ det. S. M. Blank 91". The right posterior tarsus is missing two apical segments, one half of the saw is imbedded on a slide (prep.-nr. 394, fec. Schedl 1987).

Deposition: Staatliches Museum für Naturkunde, Stuttgart.

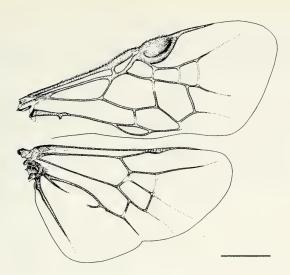


Fig. 4. Wings of Aprosthema melanopyga Zirngiebl, 1937 (holotype). Bar = 1 mm.

Discussion: Taeger (1988, 1991) supposed that *C. tricolor* Zirngiebl, 1956 and *Elinora radoszkowskii* (André, 1881) are synonymous, but the holotype fits the description of *Cuneala longipes* (Konow, 1886) in Benson (1968) [Taeger teste, 1993]. The clypeus is pyramidially deformed in the middle ("prismenförmig"/ 'prismatically' according to Zirngiebl 1956) and somewhat assymetric. The labelling of the holotype is shown in fig. 2a.

Dolerus aericeps var. guttatus Zirngiebl, 1954, syn. nov.

Zirngiebl, 1954. Mitt. Pollichia pfälz. Ver. Naturk. Nat.Schutz, Bad Dürkheim N. F. 3, 2: 139, ♀, loc. typ.: Germany, Speyer.

Taxonomic placement: Dolerus aericeps Thomson, 1871.

Lectotype (hereby designated): ♀, "Speyer VIII.20"; "Type coll. L. Zirngiebl"; [red:] "Lectotypus ♀ *Dolerus aericeps* var. *guttatus* Zirng. 1954 des. S. M. Blank '89"; "*Dolerus aericeps* Thom. ♀ det. Blank". The type is in good condition. Paralectotypes: ⁴♀♀ from Landau, Leistadt and Birkenheide. One female specimen from this series was designated

as a paratype by Zirngiebl.

Deposition: Zoologische Staatssammlung, Munich.

Discussion: Dolerus aericeps var. guttatus is a melanic form of Dolerus aericeps.

Dolerus frontalis Zirngiebl, 1930

Zirngiebl, 1930. Mitt. pfälz. Ver. Naturk. Pollichia, Bad Dürkheim N. F. 3: 275, 302, fig. 6.3, 9, loc. typ.: unknown.

Taxonomic placement: Dolerus frontalis Zirngiebl, 1930.

Discussion: Zirngiebl stated neither the type locality, nor the size of the type series. The type specimen is missing. On pages 275 and 305 Zirngiebl mentions *Dolerus frontalis* as a new species, on table 6 figure 3 he shows a drawing of valvula 1 of the female genitalia. The whole publication is missing a description in words of *D. frontalis*. The species is available, because it was published before 1931 and the new taxon is accompanied by an indication in form of an illustration (Art. 12b 7 ICZN 1985). At the moment *D. frontalis* can not be related to another species of *Dolerus*, nor its validity can be confirmed.

Dolerus lucidus Zirngiebl, 1930

Zirngiebl, 1930. Mitt. pfälz. Ver. Naturk. Pollichia, Bad Dürkheim N. F. 3: 275, 302, fig. 3.2, ♀, loc. typ.: unknown. Preoccupied in *Dolerus* by Freymuth, 1870.

Taxonomic placement: Dolerus gonager (Fabricius, 1781).

Discussion: Zirngiebl (1937) himself synonymized this taxon with *D. gonager*: "Nachdem ich aber viele hunderte dieser Tiere gesehen, musste ich erkennen, dass dies Merkmal [große, glatte, leuchtende Stellen neben den Augen] nicht konstant ist, völlig verschwinden kann oder in verschiedensten Größen auftrat. Dazu kam die Gleichheit der Sägen [von *D. lucidus* und *D. gonager*], sodass ich diese Art nicht halten konnte." ['After having seen many hundred of these animals, I had to recognize, that this character [large, smooth and shining areas beside the eyes] is not constant, that it can disappear or vary in size. Additionally the saws [of *D. lucidus* and *D. gonager*] are identical so that I could not keep this species as a valid one'; translated from Zirngiebl 1937].

Zirngiebl stated neither the type locality, nor the size of the type series. A type specimen of *D. lucidus*

could not be found.

Dolerus pratensis var. major Zirngiebl, 1954, syn. nov.

Zirngiebl, 1954. Mitt. Pollichia pfälz. Ver. Naturk. Nat. Schutz, Bad Dürkheim N. F. 3, 2: 139, \$\varphi\$, loc. typ.: Germany, Leistadt.

Taxonomic placement: Dolerus germanicus (Fabricius, 1775).

Lectotype (hereby designated): \mathcal{P} , "Leistadt-Pfalz Winterstal Juli 1932 Coll. Zirngiebl'; "Typ von *Dolerus pratensis* v. *major* Zrg. L. Zirngiebl det."; [red:] "Lectotypus \mathcal{P} *Dolerus pratensis* var. *major* Zirngiebl 1954 det. S. M. Blank '89"; "Dolerus germanicus F. \mathcal{P} det. Blank '91". The fifth and the following antennomeres of the right side are missing.

Deposition: Zoologische Staatssammlung, Munich.

Discussion: The name *major* was published as a trinomen, but Zirngiebl did not expressivly state it as a variety or a subspecies. The content of Zirngiebl's publication reveals, that the author meant "var." in this case. If *major* was a separate species, Zirngiebl would have given an individual number to it within this checklist. *D. pratensis* var. *major* is a form of *D. germanicus* with darkened abdominal tergites.

Dolerus puncticollis var. confundens Zirngiebl, 1937.

Zirngiebl, 1937. Festschr. 60. Geb. Strand, Riga 3: 347, \circ , loc. typ.: Lower Austria. Infrasubspecific name according to Art. 45 g ICZN (1985).

Taxonomic placement: Dolerus vernalis Ermolenko, 1964.

"Types": 4\$\partial \text{, "9.4.[18]65"; "Damianitsch Nied.-Oest."; "Ex Collectio Wien Dopp. d. Best. Send."; [only in one \$\partial \text{:}]} "Type Coll. L. Zirngiebl"; [red:] "Kein Typus, infrasubspezifischer Name! S. M. Blank '92"; "Dolerus vernalis Ermolenko \$\partial \text{ det. S. M. Blank '92"}.

Deposition: Zoologische Staatssammlung, Munich, and Naturhistorisches Museum, Vienna.

Discussion: *Dolerus puncticollis* var. *confundens* is a taxon of infrasubspecific rank. *D. vernalis* Ermolenko, 1964, is the valid name for this species (Blank 1993).

Emphytus balteatus var. albimaculus Zirngiebl, 1937, syn. nov.

Zirngiebl, 1937. Festschr. 60. Geb. Strand, Riga 2: 646, δ , loc. typ.: unknown. Infrasubspecific name according to Art. 45 g ICZN (1985).

Taxonomic placement: Allantus balteatus (Klug, 1818).

"Type": δ , "243"; "Typ von Emphytus balteatus v. n. albimacula L. Zirngiebl det."; [red:] "Kein Typus! Infrasubspez. Name. teste S. M. Blank '93"; "Allantus balteatus (Kl.) δ det. S. M. Blank 93".

Deposition: Zoologische Staatssammlung, Munich.

Discussion: The single male derives from a rearing (series no. 243). "Eines der ausgeschlüpften ♂♂

hat einen scharfen weissen Fleck". ['One of the emerged & has a sharp white spot'; translated from Zirngiebl 1937]. The white spot might be identical with the white edge in the middle of the first abdominal tergite. In contrast to the rest of the reared series Zirngiebl described this single male specimen because of its lighter colouration. The name Employtus balteatus var. albimaculus is of infrasubspecific rank (Art. 45 g ICZN 1985). The genitalia of the holotype agree with the drawings of A. balteatus in Koch (1988).

Emphytus balteatus var. marginalis Zirngiebl, 1954, nomen nudum

Zirngiebl, 1954. Mitt. Pollichia pfälz. Ver. Naturk. Nat. Schutz, Bad Dürkheim N. F. 3, 2: 149.

Discussion: The name var. *marginalis* is listed without further description. *E. balteatus* var. *marginalis* is a nomen nudum. The single specimen, which was designated as the type by Zirngiebl, derives from the same reared series as *E. balteatus* var. *albimaculus* Zirngiebl, 1937.

Emphytus balteatus var. nigrolinearis Zirngiebl, 1937, syn. nov.

Zirngiebl, 1937. Festschr. 60. Geb. Strand, Riga 2: 646, \mathfrak{P} , loc. typ.: Greece, Crete, Kristallenia. Taxonomic placement: *Allantus balteatus* (Klug, 1818).

Holotype: \(\text{?, "Kristallenia Mitte-Ende Juni"; "Kreta Rbl. '04"; "Ex Collectio Wien Dopp. d. Best. Send."; "Typ von
Emphytus balteatus v. n. nigrolinearis L. Zirngiebl det."; [red:] "Holotypus \(\text{? Emphytus balteatus var. nigrolinearis} \)

Zirngiebl 1937 det. Blank 1989"; "Allantus balteatus (Klug) \(\text{? det. S. M. Blank 93"}. The holotype is in good condition.
Deposition: Zoologische Staatssammlung, Munich.

Discussion: The holotype agrees with the redescription of *A. balteatus* by Koch (1988) (i.e.: valvula 1 bearing 21 serrulae, antennae serrate below).

Emphytus basalis var. masculus Zirngiebl, 1937

Taxonomic placement: Allantus spec.

Holotype: 9, "N. Mongolei Leder 92"; "Emphytus basalis Knw. var. masculus n. ssp. det. Zirngiebl"; [red:] "Holotypus 9 Emphytus basalis var. masculus Zirngiebl 1937 det. S. M. Blank (1989)". Both antennae of the holotype are missing.

Deposition: Naturhistorisches Museum, Vienna.

Discussion: One further female specimen from Kioto (coll. Zoologische Staatssammlung, Munich) was erroneously designated as a type specimen of *E. basalis* var. *masculus* by Zirngiebl. The name *masculus* has been used within *Emphytus* Klug, 1818, for an aberration by Dovnar-Zapolskij, but *masculus* Dovnar-Zapolskij is not available (*Emphytus cingulatus* ab. *masculus* Dovnar-Zapolskij, 1930, name of infrasubspecific rank according to Art. 45 f ii ICZN 1985). The status of *Emphytus basalis* var. *masculus*, which is a member of *Allantus* Panzer, 1801, can not be judged at the moment.

Emphytus perla var. obscurus Zirngiebl, 1954, syn. nov.

Zirngiebl, 1954. Pollichia, Dürkheim N. S. 3, 2: 150, $\,^{\circ}$, loc. typ.: Germany, Leistadt.

Taxonomic placement: Ametastegia carpini (Hartig, 1837).

Lectotype (hereby designated): \(\foaties, \) "Leistadt 1.VI.1934 Zirngiebl"; "Typ von \(Empluytus perla \times \text{n. obscura L. Zirngiebl det."}; \) [red:] "Holotypus \(\foaties \) Empluytus perla var. \(obscurus \) Zirngiebl 1954 \(\text{det. S. M. Blank 1989"}; \) "Ametastegia \(\text{carpini (Hartig) } \varphi \) det. S. M. Blank 93". The wings are partly slashed, the tips of valvulae 1 are broken.

Deposition: Zoologische Staatssammlung, Munich.

Discussion: The lectotype is strongly faded, but it obviously never possessed the colour pattern on the abdominal tergites, which is typical for *Ametastegia perla* (Klug, 1818). The specimen corresponds well with *A. carpini* (Hartig, 1837) in having warty punctures on the upper head, sharp serrulae on valvula 1 and an impunctate scutellum.

Eriocampa peineae Zirngiebl, 1956

Zirngiebl, 1956. Mitt. Münch. ent. Ges., München 46: 322-325, 11, \Im , loc. typ.: Iran, Rescht, Taherguourabe.

Taxonomic placement: Eriocampa peineae Zirngiebl, 1956.

Holotype: ♀, "Iran (Recht) Tahergourabe (feucht) 0 m ü. M. V.1950 F. Schäuffele leg."; "Eriocampa peineae mihi ♀ Det. Zirngiebl 1955"; [red:] "Typus Nr."; [red:] "Holotypus ♀ Eriocampa peineae Zirngiebl, 1956 teste S. M. Blank 93."; "Eriocampa peineae Zirng. ♀ det. S. M. Blank 93". The whole left posterior tarsus and the apical segment of the right posterior tarsus are missing.

Paratype: 13 with identical labelling as the holotype.

Deposition: Staatliches Museum für Naturkunde, Stuttgart.

Discussion: Benson (1968) supposed *E. peineae* to be synonymous with *E. ovata* (Linné, 1761), but these taxa are clearly distinguishable from each other by several characters. *E. peineae* has the median mesonotal lobes red [median and lateral lobes red in *E. ovata*], coxae apically, second trochanters, knees, tibiae (except for tip of posterior tibiae) and tarsi yellowish white [coxae and middle and hind femora black, upper half of anterior side of anterior femora whitish, anterior side of anterior tibiae, base of middle and hind tibiae, anterior whitish, middle tarsi partly whitish], scape and pedicel partly, third antennomere apically, 4.-6. antennomeres yellowish white, apical segments black [1.-3. segments of antennae black, lower side of 4.-9. segments variably yellowish brown to white], areas lateral to the frontal field with scattered punctures, distance between punctures about the same as diameter of the punctures [this area closely punctured, between punctures there are only narrow ridges, some of the punctures coalescent], Abdominal tergites smooth and shining [2.-5. tergite with general alutaceous surface sculpture, 2.-8. tergite with fine and scattered punctures]. The male of *E. peineae* differs from the female in having black coxae and mesonotum, antennae with 3.-5. antennomeres apically and 6.-9. antennomeres on the lower side yellowish brown, lateral areas of the second tergite with alutaceous surface, 2.-7. tergites with very fine and widely scattered punctures.

Holcocneme lucida var. rufa Zirngiebl, 1937

Zirngiebl, 1937. Festschr. 60. Geb. Strand, Riga 3: 347, \,\text{\text{\text{\chi}}, loc. typ.: Italy, Triest.

Taxonomic placement: Nematus (Nematus) spec.

Lectotype (hereby designated): \$\,\"19.V.96 Triest", "Coll. Graeffe"; "Nematus lucidus"; "Holcocneme lucidus Pz. var. rufa det. Zirng."; [red:] "Lectotypus \$\mathbb{P}\$ Holcocneme lucida var. rufa Zirngiebl teste S. M. Blank 1991". The left flagellum of the holotype is missing, several parts of the legs are missing.

Deposition: Naturhistorisches Museum, Vienna.

Discussion: Holcocneme lucida var. rufa can not be safely assigned to another species of Nematus subgen. Nematus Panzer, 1801.

Hoplocampa rutilicornis var. pleuris Zirngiebl, 1954

Zirngiebl, 1954. Mitt. Pollichia pfälz. Ver. Naturk. Nat. Schutz, Bad Dürkheim N. F. 3, 2: 152, $\,$ loc. typ.: Germany, Dannstadt.

Taxonomic placement: Hoplocampa spec.

Lectotype (hereby designated): \circ , "Naturschutzgebiet Dannstadt 23.4.1954 Coll. Zirngiebl"; [red:] "Lectotypus \circ Hoplocampa rutilicornis var. pleuris Zirngiebl 1954 des. S. M. Blank (1991)". The lectotype is in good condition.

Paralectotypes: 499 from the same locality as the lectotype.

Deposition: Zoologische Staatssammlung, Munich.

Discussion: At the moment *Hoplocampa rutilicornis* var. *pleuris* can neither be synonymized with a valid species of *Hoplocampa* Hartig, 1837, nor can its validity be confirmed.

Kokujewia clementi Zirngiebl, 1949

Zirngiebl, 1949. Mitt. Münch. ent. Ges., München 35-39: 284, $\delta \circ$, loc. typ.: Turkey, Akşehir [= Ak-Chehir].

Taxonomic placement: Kokujewia ectrapela Konow, 1902.

Lectotype (hereby designated): $\$, "Anatolien Ak-Chehir 1900 Korb"; "Cotyp"; "Kokujewia sp. n. $\$ E. Clément det."; "Kokujewia clementi Zirng. $\$ det. Zirng."; [red:] "Lectotypus $\$ Kokujewia clementi Zirngiebl 1949 des. S. M. Blank (1991)". Both antennae of the lectotype are missing.

Paralectotype: 13 from the same locality.

Deposition: Zoologische Staatssammlung, Munich.

Discussion: K. clementi has been synonymized with K. ectrapela by Benson (1968).

Kokujewia ectrapela var. clarescens Zirngiebl, 1949

Zirngiebl, 1949. Mitt. Münch. ent. Ges., München 35-39: 284, ♀, loc. typ.: Transcaucasus.

Taxonomic placement: Kokujewia spec.

Lectotype (hereby designated): \mathbb{P} , "Transcauc."; [red:] "N. Kokujew"; [handwriting of Enslin:] "*Kokujewia ectrapela* \mathbb{P} "; "*Kokujewia ectrapela* v. *clarescetum* [sic!] m. \mathbb{P} "; [red:] "Lectotypus \mathbb{P} *Kokujewia ectrapela* var. *clarescens* \mathbb{P} des. S. M. Blank (1991)". The 3.-5. tarsomeres of the right anterior leg are missing.

Deposition: Zoologische Staatssammlung, Munich.

Discussion: Presently Kokujewia ectrapela var. clarescens can neither be synonymized with K. ectrapela nor its validity can be confirmed.

Lophyrus rufiventris Zirngiebl, 1937

Zirngiebl, 1937. Festschr. 60. Geb. Strand, Riga 3: 338-339, ♀, loc. typ.: Albania, Merdita Munela. Taxonomic placement: *Gilpinia rufiventris* (Zirngiebl, 1937).

Holotype: ♀, "1♀ aus Albanien (Merdita Munela) 1906".

Discussion: The type specimen, which should be deposited in the Naturhistorisches Museum Vienna according to Zirngiebl (1937), could not be found. The status of *L. rufiventris*, which was listed by Smith (1974) as a species of genus *Diprion* Schrank, 1802, is uncertain. Zirngiebl mentions a scalelike apical spur of the hind tibia, which can be found in certain species of *Gilpinia* Benson, 1939, i.e. *G. pallida* (Klug, 1812), *G. virens* (Klug, 1812) and *G. hercyniae* (Hartig, 1837) (cf. Smith 1979). None of these species agrees with the description of *rufiventris*.

Lygaeonematus pallipes var. femoralis Zirngiebl, 1953, syn. nov.

Zirngiebl, 1953. Nachrichtenbl. bay. Ent., München 2: 32, ♂, loc. typ.: Germany, Alps of Ammergau, Frieder Massiv.

Taxonomic placement: Pristiphora lativentris (Thomson, 1871).

Holotype: &, "F. Daniel et J. Wolfsberger leg."; "Bav. mer. Ammergauer Berge Frieder-Gebiet 1700-2000 m 27.V.-1.VI.1948"; "Amauronematus ?alpicola Konow & det. R. B. Benson 1952"; "Lygaeonematus pallipes var. det. Zirngiebl"; [red:] "Holotypus & Lygaeonematus pallipes var. femoralis Zirngiebl 1953 det. S. M. Blank (1991)"; "Pristiphora lativentris (Thom.) det. S. M. Blank 94". The ninth segment of the left antenna is missing.

Deposition: Zoologische Staatssammlung, Munich.

Discussion: The holotype agrees with the description of *P. lativentris* in Benson (1958).

Metallus gei var. egregius Zirngiebl, 1963, syn. nov.

Zirngiebl, 1963. Pfälz. Heimat, Speyer 14: 146-147, ♀. Infrasubspecific name according to Art. 16 and 45 f ICZN (1985).

Taxonomic placement: Metallus lanceolatus (Thomson, 1870).

"Types": 899, Birkenheide and Hildesheim.

Deposition: Zoologische Staatssammlung, Munich.

Discussion: The name var. *egregius* is not available, because it was described as a variety after 1960 and is therefore of infrasubspecific rank (Art. 16 and 45f ICZN 1985). The "types" in the collection of Zirngiebl agree with pale specimens of *Metallus lanceolatus* (Thomson, 1870).

Pamphilius inanitus var. kruegeri Zirngiebl, 1954, nomen nudum

Zirngiebl, 1954. Mitt. Pollichia pfälz. Ver. Naturk. Nat. Schutz, Bad Dürkheim N. F. 3, 2: 179, W.

Discussion: A description of *P. inanitus* var. *kruegeri* is missing, thus the taxon has to be treated as a nomen nudum. The three "types" in Zirngiebl's collection belong to *P. inanitus* (Villers, 1789).

Pontania auberti Zirngiebl, 1957

Zirngiebl, 1957. Mitt. schw. ent. Ges., Lausanne 30: 173-174, ♀, loc. typ.: Algeria, Saïda.

Taxonomic placement: Phyllocolpa ?leucostica (Hartig, 1837).

Holotype: \$\, [red:] "Typus"; "Algerie Saïda, 5.4.1950 J. Aubert"; "PR 250 (VV)"; "Pontania Auberti Zrg. \$\, 1957 det. Zirngiebl"; [red:] "Holotypus \$\, Pontania auberti Zirngiebl 1957 det. S. Blank '89". Both flagella are missing, the saw is mounted on a separate slide [prep.-no. 250 (VV)].

Deposition: Musée Zoologique Cantonal, Lausanne.

Discussion: According to Kopelke und Lacourt (pers. comm.) *P. auberti* might be synonymous with *Phyllocolpa leucostica* (Hartig, 1837).

Pontania enslini Zirngiebl, 1937, syn. nov.

Zirngiebl, 1937. Festschr. 60. Geb. Strand, Riga 3: 337-338, \$\varphi\$, loc. typ.: Lappland, Nissontjokko. Taxonomic placement: *Pontania herbaceae* (Cameron, 1758).

Holotype: ♀, "1♀ aus Lappland. (Torne träsk Nissontjokko) 1920 von O. Wetterstein gesammelt".

Discussion: According to Fischer, Kopelke (pers. comm.) and my own search the type can not be found in Vienna, Lausanne or Munich. One male specimen, which originates from the type locality, is deposited in the Naturhistorisches Museum Vienna, but it does not come into question as the holotype, because Zirngiebl definitely referred his description to a female specimen (description of the female saw sheath). Benson (1960), Muche (1970) and Krombein et al. (1979) synonymized *P. enslini* with *P. crassipes* auct. nec (Thomson, 1871) (= *P. herbaceae* (Cameron, 1875); Kopelke 1989, 1989, 1991).

Pontania femoralis var. virilis Zirngiebl, 1955

Zirngiebl, 1955. Pfälz. Heimat, Speyer 6: 68, $\, {}^{\circ}\!\!\!\!/ \,$ loc. typ.: Germany, Dannstadt.

Taxonomic placement: Pontania virilis Zirngiebl, 1955.

Lectotype: \$\, "\tilde{\pi}\, "\tild

Paralectotypes: 399 from the same locality.

Deposition: Zoologische Staatssammlung, Munich.

Discussion: Kopelke (1990), who investigated type specimens, regards *P. virilis* as a valid species, which causes galls on the leaves of *Salix purpurea*.

Pontania kirchneri Zirngiebl, 1954, nomen nudum

Zirngiebl, 1954. Mitt. Pollichia pfälz. Ver. Naturk. Nat. Schutz, Bad Dürkheim N. F. 3, 2: 165, W.

Discussion: At this place a description of *P. kirchneri* is missing. Zirngiebl only writes: "An *Salix aurita*. Von [*Pontania*] *capreae* nicht leicht zu unterscheiden, jedoch Larve und Galle anders gebaut" ['On *Salix aurita*. Not easily distinguishable from [*Pontania*] *capreae*, but larva and gall different'; translated from Zirngiebl 1954]. Zirngiebl actually described *P. kirchneri* in 1959.

Pontania kirchneri Zirngiebl, 1959

Zirngiebl, 1959. Pfälzer Heimat, Speyer 9: 22-26, ♀, loc. typ.: Germany, Dürkheimer Bruch. Taxonomic placement: *Pontania bridgmanii* (Cameron, 1883).

Holotype: \$\, \text{"Elter } Pontania \text{ spec. Zucht Nr. } 40/53 \text{ Coll. Zirngiebl"}; "Birkenheide-Pfalz 11. September 1953 \text{ Coll. Zirngiebl"}; "Typ von / Holotyp Pontania \text{ kirchneri } \text{ mihi L. Zirngiebl"}; "Pontania \text{ ?bridgmanii (Cam.) Kopelke det. } 11/88"; [red.] "Holotypus \$\text{ Pontania kirchneri Zirngiebl 1959 det. S. M. Blank (1991)"}. The holotype is in good condition.

Paratypes: 1699 from Birkenheide, Eichweiler-Madenburg and Dürkheimer Bruch.

Deposition: Zoologische Staatssammlung, Munich; according to Zirngiebl further paratypes are deposited in coll. Lindqvist (Zoological Museum Helsinki), which have not been investigated by me.

Discussion: The synonymy with *P. bridgmanii* was proposed by Beneš (1968) for the first time. Also with reservations Kopelke treats *P. kirchneri* as a synonym of this species (Kopelke, pers. comm.). The labelling of the holotype is shown in fig. 2b.

Pristiphora beaumonti Zirngiebl, 1957

Zirngiebl, 1954. Mitt. schw. ent. Ges., Lausanne 30: 171-172, ♀, loc. typ: Algeria, Saïda.

Taxonomic placement: Pristiphora beaumonti Zirngiebl, 1957.

Holotype: P, [red:] "Typus"; "Algerie Saïda, 5.4.1950 J. Aubert"; "Pristiphora DeBeaumonti Zrg. P 1957 det. Zirngiebl"; [red:] "Holotypus P Pristiphora beaumonti Zirngiebl det. S. Blank '89". The right posterior femur, tibia and tarsus are missing.

Deposition: Staatliches Museum für Naturkunde, Stuttgart.

Discussion: Lacourt (1976) regarded *P. beaumonti* as a valid species and described the male gender of the species from Marocco.

Pseudocephaleia brachycerus Zirngiebl, 1937

Taxonomic placement: Pseudocephaleia praeteritorum (Semenov, 1934).

Holotype: ♀, "Merdita M. Schéit"; " *Pamphilius brachycerus* nov. spec. det. Zirngiebl"; [red:] "Type"; [red, Schedl teste:] "Holotypus *Pseudocephaleia brachycerus* Zirngiebl"; "*Pamphilius brachycerus* (Zirng.) ♀ det. W. Schedl 1981"; "*Pseudocephaleia praeteritorum* Sem. Tian-Sh. ♀ det. Blank". The left antenna is missing some flagellomeres, the left middle leg and both hind legs are missing the tarsi, the left anterior wing is damaged.

Deposition: Naturhistorisches Museum, Vienna.

Discussion: *P. brachycerus* has been synonymized with *P. praeteritorum* by Beneš (1984, cited in Achterberg & Aartsen, 1986).

Pteronus eurysternus var. struvei Zirngiebl, 1939, syn. nov.

Zirngiebl, 1939. Abh. naturw. Ver., Bremen 31(1): 109-111, \mathfrak{P} , loc. typ.: Germany, Borkum. Infrasubspecific name according to Art. 45 g ICZN (1985).

Taxonomic placement: Nematus similator Förster, 1854.

"Type": 9, Borkum, 2.6.38, leg. Struve.

Deposition: Probably in the Westfälisches Landesmuseum für Naturkunde, Münster.

Discussion: Zirngiebl lists "zwei *Pteronus*-Arten, die zu *eurysterna* zu zählen sind" ['two *Pteronus* species, which belong to *eurysterna*'; translated from Zirngiebl 1939]. Henceforth Zirngiebl calls these two "species" the light and the dark form: *P. eurysterna* var. *lutescens* Enslin, 1916, and *Pteronus eurysterna* var. *struvei*. "Sägescheide, Stigma und Flügelgeäder stimmen mit der Enslin-Beschreibung völlig überein, ebenso die Plastik des Kopfes, so daß ich in der vorliegenden Wespe eine Verdunkelung der *Pteronus eurysterna* erblicke, eine Varietät, die ich zu Ehren Herrn Struves benenne" ['Saw, stigma and wing venation agree perfectly with the description of Enslin, just so the morphology of the head, so that I recognize the submitted sawfly as a darkened specimen, a variation, which I name in honor

of Mr Struve'; translated from Zirngiebl 1939). Zirngiebl himself refers to the fact that both specimens were captured at the same locality. The content of the description reveals that Zirngiebl meant

infrasubspecific rank when he described P. eurysternus var. struvei.

The Westfälisches Landesmuseum für Naturkunde, where Struve's collection is preserved, probably keeps the "type". Despite several inquiries addressed to Dr. M. Berger at this museum I did not receive the "type" specimen. Two specimens of the Münster collection, which have been determined as *P. eurysternus* by Zirngiebl, lack the original determination label of Zirngiebl. They bear a handwritten notice (of F. and R. Struve?) on the lower side of another label, which does not refer to var. *struvei* (Ritzau, pers. comm.).

Selandria flavens var. antennalis Zirngiebl, 1954, syn. nov.

Zirngiebl, 1954. Mitt. Pollichia pfälz. Ver. Naturk. Nat.Schutz, Bad Dürkheim N. F. 3, 2: 145, 3, loc. typ.: Germany, Zeiskam.

Taxonomic placement: Brachythops flavens (Klug, 1816).

Holotype: δ , "Zeiskam 2.V.27"; "Selandria flavens v. antennaris [sic!] Zirng."; [red:] "Holotypus Selandria flavens var. antennalis Zirngiebl 1954 det. S. M. Blank (1991)"; "Brachythops flavens (Klug) δ det. S. M. Blank 93". The right middle leg is missing.

Deposition: Zoologische Staatssammlung, Munich.

Discussion: The holotype of *S. flavens* var. *antennalis* has black coloured basal antennomeres. This colouration lies within the range of variation of *B. flavens*.

Selandria flavens var. flavissima Zirngiebl, 1961, syn. nov.

Zirngiebl, 1961. Mitt. Pollichia pfälz. Ver. Naturk. Nat.Schutz, Bad Dürkheim N. F. 3, 8: 187, 3. Infrasubspecific name according to Art. 16 and 45 f ICZN (1985).

Taxonomic placement: Brachythops flavens (Klug, 1816).

"Type": 18 from Dürkheimer Bruch.

Deposition: Zoologische Staatssammlung, Munich.

Discussion: The taxon *Selandria flavens* var. *flavissima* is not available, because it was described as a variety after 1960 and therefore has only infrasubspecific rank (Art. 16 and 45 f ICZN 1985). The "type" specimen agrees well with *B. flavens*.

Selandria serva var. punctata Zirngiebl, 1956, syn. nov.

Zirngiebl, 1956. Mitt. Münch. ent. Ges., München 46: 322, &, loc. typ.: Iran, Recht, Tahergourabe. Taxonomic placement: *Selandria serva* (Fabricius, 1793).

Holotype: &, "Iran (Recht) Tahergourabe (feucht) 0 m ü. M. V.1950 F. Schäuffele leg."; "Selandria serva var. punctatus m. & Det. Zirnbiebl 1955"; [red:] "Typus"; [red:] "Holotypus & Selandria serva var. punctata Zirngiebl, 1956 teste S. M. Blank 93"; "Selandria serva var. punctata Zirng. det. S. M. Blank 93". The holotype is missing the right anterior and the left posterior tarsus.

Deposition: Staatliches Museum für Naturkunde, Stuttgart.

Discussion: The upper 2/3 of the mesepisterna of *S. serva* var. *punctata* bear fine punctures, the distance between them in the centre of the mesepisterna measures about 4 times their own diameter. One additional male specimen collected in Syria (Halab, Jisr ech Chogur, 21.3.1979, leg. Kinzelbach; coll. Blank) has more minutely punctate mesepisterna, two further male specimens from the same locality have almost impunctate mesepisterna. Central European males have impunctate mesepisterna. No genitalmorphological differences could be found among Central European, Syrian and Iranian male specimens (cf. Koch 1986). At the moment there is not enough material of *S. serva* from the eastern mediterranean area available to decide, whether *S. serva* var. *punctata* is a valid subspecies or a morphological variety of *S. serva*.

Sirex antennatus var. immaculatus Zirngiebl, 1937

Zirngiebl, 1937. Festschr. 60. Geb. Strand, Riga 3: 350, \Im loc. typ.: Japan, Etorofu-Islands. Taxonomic placement: Sirex spec.

Lectotype (hereby designated): \mathcal{P} , "Japan leg. Niijima"; "Etorofu- Isl. [... (Japanese)] V.III.1923"; "Sirex antennatus Marl. var. nov. immaculata Zir. \mathcal{P} "; [red:] "Lectotypus \mathcal{P} Sirex antennatus var. immaculatus Zirngiebl 1937 des. S. M. Blank 1991". The tip of the saw, the tip of the right antenna and a part of the right hind tarsus are missing.

Deposition: Naturhistorisches Museum, Vienna.

Discussion: The status of Sirex antennatus var. immaculatus can not be judged at the moment.

Tenthredo carolinae Zirngiebl, 1937, syn. nov.

Zirngiebl, 1937. Festschr. 60. Geb. Strand, Riga 3: 351-352, 3, loc. typ.: Turkestan, Mts. Chissar. Taxonomic placement: *Tenthredo variabilis* (Mocsáry, 1909).

Holotype: &, "Turkestan Mts. Ghissar F. Hauser 1898"; "Tenthredo carolinae nov. spec. det. Zirngiebl"; "Tenthredo carolinae nov. spec."; [red:] "Holotypus & Tenthredo carolinae Zirngiebl 1937 det. S. M. Blank (1989)"; "Tenthredo variabilis Mocs. Q det. S. M. Blank 91". The holotype is missing both posterior tarsi.

Deposition: Naturhistorisches Museum, Vienna.

Discussion: Zhelochovtsev (1976) synonymized *T. carolinae* with *T. pamyrensis*, Taeger (1988, 1992) accepted this opinion. The examination of the holotype resulted in the new synonymy with *T. variabilis*.

Tenthredo maculata var. collaris Zirngiebl, 1940, syn. nov.

Zirngiebl, 1940. Verh. Ver. naturw. Heimatforsch., Hamburg 28: 84-85, ♀, loc. typ.: Austria, Emms. Taxonomic placement: *Tenthredo maculata* ssp. *maculata* Geoffroy, 1785.

Lectotype (hereby designated): ♀, "Emms Ob.Öst. Sarg 1916"; [red:] "Lectotypus ♀ *Tenthredo maculata* var. *collaris* Zirngiebl des. Blank (1989)". The Lectotype is in good condition.

Paralectotype: 19 from the same locality.

Deposition: Naturhistorisches Museum, Vienna.

Discussion: *T. maculata* var. *collaris* was described due to the almost black pronotum and the yellow tegulae. The colouration of pronotum, tegulae and scutellum is quite variable in *T. maculata*. Variably light coloured specimens can be found at the same locality. *T. maculata* var. *collaris* is a synonym of *T. maculata*.

Tenthredo maculata var. coloris Zirngiebl, 1940

Zirngiebl, 1940. Verh. Ver. naturw. Heimatforsch., Hamburg 28: 84-85, ♀, loc. typ.: Italia, Antonimina. Taxonomic placement: *Tenthredo maculata* ssp. *diana* Benson, 1968.

Lectotype (hereby designated): 9, "Antonimina Paganetti"; "Tenthredo maculata coloris m."; [red:] "'Typus' 9
Tenthredo maculata var. coloris Zirngiebl 1940 des. S. M. Blank (1991)"; "Tenthredo maculata ssp. coloris Zirng. det. Blank
'91". The right flagellum is missing.

Deposition: Zoologische Staatssammlung, Munich.

Discussion: Pesarini (1988) notes that the name *coloris* is not available because it refers to an unit of infrasubspecific rank. Zirngiebl related the newly described taxon to a particular geographical area, the locality Antonimina, erroneously published as Antonimina (cf. labelling of the holotype shown in fig. 2c). With this statement one criterion of Art. 45 g ii ICZN (1985) could be interpreted to be fulfilled. Nevertheless I follow Pesarini to preserve the current usage of the name *diana*.

Tenthredo maculata var. wagneri Zirngiebl, 1940, syn. nov.

Zirngiebl, 1940. Verh. Ver. naturw. Heimatforsch., Hamburg 28: 84-85, &, loc. typ.: Germany, Leistadt.

Taxonomic placement: Tenthredo maculata ssp. maculata Geoffroy, 1785.

Lectotype (hereby designated): &, "Tertiär-Kalk Leistadt 1933 Zirngiebl"; "Tenthredo maculata v. wagneri m."; [red:] "Lectotypus & Tenthredo maculata var. wagneri Zirngiebl 1940 des. S. M. Blank (1991)". The lectotype is in good condition.

Deposition: Zoologische Staatssammlung, Munich.

Discussion: Zirngiebl investigated at least two syntypes, because he writes of the type localities Hamburg and Leistadt, but only one male specimen could be found. *T. maculata* var. *wagneri* was described due to the yellow pronotum and the almost black scutellum. The colouration of the body is variable in *T. maculata*, thus this variety is proposed as a synonym (cf. discussion under *T. maculata* var. *collaris*).

Tenthredo velox var. alpina Zirngiebl, 1937, syn. nov.

Zirngiebl, 1937. Festschr. 60. Geb. Strand, Riga 3: 345, \mathfrak{P} , loc. typ.: Switzerland, Alps near Bern [Berner Alpen]. Preoccupied in *Tenthredo* by Zetterstedt, 1838 [= *Hoplocampa alpina* (Zetterstedt, 1838)].

Taxonomic placement: Tenthredo velox Fabricius, 1798.

Holotype: $\c ,$ "1 \c Schweiz (Berner Alpen) 1867 von Rogenhofer erbeutet".

Deposition: Probably in the Naturhistorisches Museum, Vienna.

Discussion: The type specimen, which should be preserved in the Naturhistorisches Museum Vienna according to Zirngiebl (1937), could not be located. The status of *T. velox* var. *alpina* can not be judged at the moment.

Tenthredo velox var. nigripleuris Zirngiebl, 1937, syn. nov.

Zirngiebl, 1937. Festschr. 60. Geb. Strand, Riga 3: 345, δ , loc. typ.: Austria, Schneeberg. Preoccupied in *Tenthredo* by Enslin, 1910.

Taxonomic placement: Tenthredo velox Fabricius, 1798.

Lectotype (hereby designated): δ , "Schneeberg 9.7.84"; "Kolazy"; "Tenthredo velox var. nigripleuris ssp. n. δ det. Zirngiebl"; "Tenthredo velox var. nigripleuris ssp. n. δ "; [red:] "Lectotypus δ Tenthredo velox var. nigripleuris Zirngiebl 1937 des. S. M. Blank (1989)". The lectotype is in good condition.

Deposition: Naturhistorisches Museum, Vienna.

Discussion: In the collection of the Naturhistortisches Museum Vienna there is only a male specimen of *T. velox* var. *nigripleuris*, which agrees with the original description. Obviously Zirngiebl mentioned the female genus erroneously in his description. *T. velox* var. *nigripleuris* agrees well with *T. velox*.

Tenthredopsis parvula var. nigrilobis Zirngiebl, 1937

Zirngiebl in Struve, 1937. Abh. naturw. Ver. Bremen 30(1/2): 134, ?\$\$\delta\$, loc. typ.: Germany, Borkum. Taxonomic placement: *Tenthredopsis* spec.

"Type": Borkum.

Discussion: Struve (1937) lists a "*Tenthredopsis parvula* Knw. var. *nigrilobis* Zirngiebl, var. nov." and describes the colouration of the variety. Zirngiebl is cited as the author of var. *nigrilobis* by Struve. Type specimens could not be found in the collection of the Zoologische Staatssammlung. Probably they are preserved at the Westfälisches Landesmuseum für Naturkunde in Münster. The status of *T. parvula* var. *nigrilobis* can not be judged at the moment.

Tomostethus orientalis Zirngiebl, 1937

Zirngiebl, 1937. Festschr. 60. Geb. Strand, Riga 3: 335-336, ♀♂, loc. typ.: Turkey, Istanbul, Kutshuktshekmedie.

Taxonomic placement: Tomostethus orientalis Zirngiebl, 1937.

Paratype: ♀, "Apfelbeck Byzant. Kuc. Tschek."; "Paratype Coll. Zirngiebl"; [red:] "Paratypus ♀ *Tomostethus orientalis* Zirngiebl 1937 teste S. M. Blank 93". The paratype is in poor condition: the abdomen is broken, the wings are slashed, several tarsomeres are missing, the valvulae 1 and 2 are broken.

Deposition: Zoologische Staatssammlung, Munich.

Discussion: Describing *T. orientalis* Zirngiebl investigated three specimens. One male and one female specimen, which should be preserved at the Naturhistorisches Museum Vienna, are probably lost. Zirngiebl called these specimens "Typus", he probably meant the holotype and allotype. Thus the only remaining specimen is a paratype. *T. orientalis* is morphologically very similar to *T. nigritus* (Fabricius, 1804), but it can be distinguished from this species by the red knees and tarsi (posterior tarsi partly darkened) and the brownish wings. *T. orientalis* differs from *T. nigritus* ssp. *claripennis* Enslin, 1913, by the brownish, not clear wings, and from *T. melanopygius* (Costa, 1859) and *T. melanopygius* var. *pleuriticus* Enslin, 1914 by the completely black abdomen (cf. Enslin 1914).

Xiphydria maidli Zirngiebl, 1937

Zirngiebl, 1937. Festschr. 60. Geb. Strand, Riga 3: 342-343, ♀, loc. typ.: Russia, Eastern Sibiria, Chabarowsk, Krasnaja Ajotschka.

Taxonomic placement: Euxiphydria potanini (Jakovlev, 1891).

Lectotype (hereby designated): \mathbb{Q} , "Krasnaja Ajotschka bei Chabarowsk leg. Babyi VIII.1917"; "Xiphydria maidli nov. spec. det Zirngiebl"; "6"; [red:] "Type"; [red:] "Lectotypus \mathbb{Q} Xiphydria maidli Zirngiebl 1937 det. S. M. Blank (1989)"; "Euxiphydria ruficeps \mathbb{Q} (Mocs.) det. Blank". The lectotype is in good condition.

Paralectotype: 19 from Japan.

Deposition: Lectotype in Naturhistorisches Museum, Vienna, Paralectotype in Zoologische Staatssammlung, Munich.

Discussion: Takeuchi (1938) synonymized *X. maidli* with *Euxiphydria ruficeps*, Watanabe (1956) accepted this status. *E. ruficeps* is a junior synonym of *E. potanini* (cf. Smith 1978).

Holo- and paratype have perhaps been designated by Zirngiebl himself, otherwise he never used this kind of red type label. In the original description he mentions the Siberian specimen as the type.

Acknowledgements

I specially thank Mrs K. Zirngiebl for biographical dates and a photo showing her husband. I am indebted to the late Dr. F. Bachmaier (München), Prof. Dr. H. H. Dathe (Eberswalde), E. Diller (München), B. Ewald (Eberswalde), Hofrat Dr. M. Fischer (Wien), Hofrat Dr. J. Gusenleitner (Linz), Dr. J.-P. Kopelke (Frankfurt), J. Lacourt (Igé), Dr. C. Maddalena (Lausanne), M. Müller (München), Dr. T. Osten (Stuttgart), Dr. C. Ritzau (Oldenburg), Univ.-Prof. Dr. W. Schedl (Innsbruck), PD Dr. Klaus Schönitzer (München), and Dr. A. Taeger (Eberswalde), for their kind support, encouragement and critical discussion. A. D. Liston (Daibersdorf) kindly corrected the English.

References

Abe, M. & D. R. Smith 1991. The Genus-group Names of Symphyta (Hymenoptera) and Their Types. - Esakia, Fukuoka 31: 1-115

Achterberg, C. van & B. van Aartsen 1986. The European Pamphiliidae (Hymenoptera: Symphyta), with Special Reference to the Netherlands. - Zool. Verh. Leiden 234: 1-98

Alfken, J. D. 1937. Verzeichnis der Blatt- und Holzwespen von Nordwestdeutschland, mit Berücksichtigung der Ostfriesischen Inseln. - Verh. naturw. Ver. Bremen 30(1/2): 170-196

Beneš, K. 1968. Galls and larvae of the European species of genera *Phyllocolpa* and *Pontania* (Hymenoptera, Tenthredinidae). - Acta ent. bohem. 65(2): 112-137

- Benson, R. B. 1947. A new British sawfly (Hym., Tenthredinidae) related to *Rhogogaster picta* (Klug). Ent. monthly Mag. 83: 96-99
- -- 1952. Hymenoptera. 2. Symphyta. Handb. Ident. Brit. Ins. VI, 8, 2(b): 51-137
 - 1958. Hymenoptera. 2. Symphyta. Handb. Ident. Brit. Ins. VI, 8, 2(c): 139-252
- 1959. Revision of the European sawflies of the Tenthredo arcuata-schaefferi complex (Hymenoptera: Tenthredinidae). Proc. ent. Soc., London (B) 28(7-8): 93-102
- -- 1960. Studies in Pontania (Hym., Tenthredinidae). Bull. Brit. Mus. (Nat. Hist.) Ent. 8(9): 367-384
- -- 1968. Hymenoptera from Turkey. Symphyta. Bull. Brit. Mus. (Nat. Hist) Ent. 22(4): 111-207
- Blank, S. M. 1989. Lothar Zirngiebl (1902-1973), Bibliographie. Spixiana 12(3): 303-306
- 1993. Eine neue Blattwespenart für die Fauna Österreichs: Dolerus vernalis Ermolenko, 1964 (Insecta: Hymenoptera, Tenthredinidae). Ber. nat.-med. Ver. Innsbruck 80: 363-371
- Blüthgen, P. 1956. Über einige *Polistes*-Arten der Zoolog. Staatssammlung in München (Hym., Vespidae, Polistinae).
 Nachr.bl. bayer. Ent. 5(9): 81-86
- Dovnar-Zapolskij, D. P. 1930. Neue oder wenig bekannte Chalastogastren. Rev. Russe Ent. 24(1-2): 86-94
- Enslin, E. 1914. Ueber Tenthrediniden aus Spanien. Nebst einer Bestimmungstabelle der paläarktischen *Tomostethus.* Arch. Naturg. 79 (9a) [1913]: 165-172
- Ermolenko, V. M. 1993. Novyj vid pililshchikov-tkatshj (Hymenoptera, Pamphiliidae) iz Talisha. J. Ukr. ent. Soc. 1(1): 37-42
- Gussakovskij, V. V. 1947. Chalastogastra (partie 2). Faune URSS. Insectes Hyménoptères, vol. II, no. 2. Acad. Sci. URSS, Moscou & Leningrad
- Hartig, T. 1837. Die Familien der Blattwespen und Holzwespen nebst einer allgemeinen Einleitung zur Naturgeschichte der Hymenopteren. Berlin, 416 pp
- Koch, F. 1986. Taxonomische Bemerkungen zur Gattung Selandria Leach, 1817 (Hymenoptera). Dt. ent. Z., N. F. 33(3-5): 249-252
- 1988. Zur Differentialdiagnose einiger Allantus-Arten (Insecta, Hymenoptera, Symphyta: Tenthredinidae). -Reichenbachia 26(9): 43-53
- Kopelke, J.-P. 1989. Der taxonomische Status von Pontania crassipes (Thomson, 1871) (Insecta: Hymenoptera: Tenthredinidae). - Senckenb. biol. 69(1/3): 29-39
- 1989. Mittel- und nordeuropäische Arten der Gattung Pontania Costa 1859 aus der herbaceae- und polaris-Gruppe (Insecta: Hymenoptera: Tenthredinidae). - Senckenb. biol. 69(1/3): 41-72
- 1990. Der taxonomische Status von Pontania dolichura (Thomson 1871) (Insecta: Hymenoptera: Tenthredinidae).
 Senckenb. biol. 70(4/6): 271-279
- 1991. Die Arten der viminalis-Gruppe, Gattung Pontania O. Costa 1959, Mittel- und Nordeuropas. (Insecta: Hymenoptera: Tenthredinidae). Senckenb. biol. 71(1-3): 65-128
- Krombein, K. V., Hurd, P. D., Smith D. R. & B. D. Burks 1979. Catalog of Hymenoptera in America North of Mexico. -Smiths. Inst. Press., 2735 pp.
- Lacourt, J. 1976. Note sur les *Pristiphora* Latreille d'Afrique du Nord avec Description d'une nouvelle Espèce (Hymenoptera Tenthredinidae). Nouv. Rev. Ent. 6(3): 309-315
- 1991. Le genre Elinora Benson, 1946, au Maroc avec descriptions de quatre nouvelles espèces (Hymenoptera: Tenthredinidae). - Ann. Soc. ent. Fr. (N. S.) 27(1): 69-101
- Malaise, R. 1941. Gattungstabelle der Blattwespen (Hym. Tenth.) der Welt. I. Arginae. Ent. Tidskr. 1941: 131-140 Muche, W. H. 1970. Die Blattwespen Deutschlands. IV. Nematinae (I. Teil) (Hymenoptera). Ent. Abh. Mus. Tierkd. Dresden 36: 157-236, Supp. IV.
- 1975. Die Blattwespen Mitteleuropas. Die Gattung Amauronematus Konow (Hymenoptera, Nematinae). Ent. Abh. Mus. Tierkd. Dresden 40: 1-53, Suppl. II.
- Pesarini, F. 1988. Studi sulle Tenthredininae (Hymenoptera Tenthredinidae). Mem. Soc. ent. ital. 67(2): 337-358
- Smith, D. R. 1974. Conifer sawflies, Diprionidae: Key to North American Genera, checklist of world species and new species from Mexico (Hymenoptera). Proc. ent. Soc. Washington 76: 409-418
- 1978. Suborder Symphyta (Xyelidae, Paraxyelidae, Parapamphiliidae, Xyelydidae, Karatavidae, Gigasiricidae, Sepulcidae, Pseudosiricidae, Anaxyelidae, Siricidae, Xiphydriidae, Paroryssidae, Xyelotomidae, Blasticotomidae, Pergidae). In: Vecht, J. van der & R. D. Shenefelt: Hymenopterorum Catalogus (nova editio) 14: 1-193. The Hague
- -- 1979. A new pine sawfly from Thailand (Hymenoptera: Diprionidae). Thai J. Agr. Sci. 12: 145-149
- Struve, F. 1937. Beitrag zur Kenntnis der Hymenopterenfauna der Nordseeinsel Borkum. Abh. naturw. Ver. Bremen 30(1/2): 131-151
- Taeger, A. 1984. Zur Systematik der Blattwespengattung Tenthredo (s. str.) L. (Hymenoptera: Symphyta: Tenthredinidae). Ent. Abh. Mus. Tierkd. Dresden 48(8): 83-148
- 1986. Beitrag zur Taxonomie und Verbreitung paläarktischer Allantinae (Hymenoptera, Symphyta). Beitr. Ent.
 36(1): 107-118
- 1988. Dritter Beitrag zur Kenntnis der Blattwespengattung Tenthredo L. (Hymenoptera: Symphyta: Tenthredinidae). Beitr. Ent. 38(2): 337-359
- 1991. Zwei neue paläarktische Blattwespengattungen aus der Unterfamilie Tenthredininae (Insecta, Hymenoptera, Symphyta: Tenthredinidae). Ent. Abh. Mus. Tierkd. Dresden 54(3): 71-95

- 1992. Fünfter Beitrag zur Systematik der Blattwespengattung Tenthredo L. (Hymenoptera, Symphyta). Beitr. Ent. 42(1): 3-53
- Taeger, A. & S. M. Blank 1996. Kommentare zur Taxonomie der Symphyta (Hymenptera). (Vorarbeiten zu einem Katalog der Pflanzenwespen, Teil 1). Beitr. Ent. 46(2): 251-275 (in press)
- Takeuchi, K. 1938. A systematic study on the suborder Symphyta (Hymenoptera) of the Japanese Empire (I). -Tenthredo 2(2):173-229
- Watanabe, C. 1956. Notes on Xiphydriidae of Japan (Hymenoptera, Symphyta). Ins. Mats. 20(1-2): 6-10
- Zhelochovtsev, A. N. 1976. Materialy po faune pililshchikov i rogochvostov srednej Azii I. Sborn. Trud. Zool. Muz. Moskovsk Gos. Univ. 15: 3-73
- 1976. Fauna pililshchikov i rogochvostov (Hymenoptera Symphyta) yuga Magadanskoy oblasti. Sborn. Trud.
 Zool. Muz. Moskovsk Gos. Univ. 15: 7496
- 1988. Opredelitel' nasekomych evropejskij tshasti SSSR, 3. Perepontshatokrylije. Shestaja tshast. Nauka, Leningrad 3(6): 7-234
- Zirngiebl, H. 1924. Beitrag zur Kenntnis der pfälzischen Blattwespenfauna. Pfälz. Mus. Pfälz. Heimatkd., Speyer 41/20(1-3): 35-37
- Zirngiebl, L. 1930. Die Sägen der Blattwespen, 1. Teil. Mitt. pfälz. Ver. Naturk. Pollichia, Bad Dürkheim N. F. 3: 267-306
- 1937. Beitrag zur Biologie des Emphytus Klg. (Allantus Pz. u. Jur.) balteatus Klg. und Beschreibung des unbekannten Männchens.
 Festschr. 60. Geb. Strand 2: 638-647
- -- 1937. Ein Beitrag zur Kenntnis der Blattwespen. Festschr. 60. Geb. Strand 3: 350-355
- 1937. Neue oder wenig bekannte Tenthredinoiden (Hym.) aus dem Naturhistorischen Museum in Wien. -Festschr. 60. Geb. Strand 3: 335-350
- -- 1939. Pteronus eurysterna Zdd. var. nov. struvei. Abh. naturw. Ver. Bremen 31(1): 109-111
 - 1940. Beitrag zur Kenntnis unserer Blattwespen. Verh. Ver. naturw. Heimatforsch. Hamburg 28: 83-91
- 1942. Über einige Blattwespenarten, die an unseren Gewürz-, Heil- und anderen Nutzpflanzen als Schädlinge auftreten. - Mitt. Pollichia pfälz. Ver. Naturk. Nat. Schutz, Bad Dürkheim N. F. 10: 95-104
- -- 1949. Ein Beitrag zur Kenntnis der Tenthrediniden (Hym.). Mitt. Münch. ent. Ges. 35-39: 283-290
- -- 1953. Nordische Nematiden in den bayerischen Alpen. Nachrbl. bay. Ent. 2(4/5): 30-32
 - 1953. Tenthredinoiden aus der Zoologischen Staatssammlung in München. Mitt. Münch. ent. Ges. 43: 234-238
- 1954. Zur Wespenfauna der Pfalz. II. Teil: Blatt-, Holz- und Halmwespen. Mitt. Pollichia pfälz. Ver. Naturk. Nat.Schutz, Bad Dürkheim N. F. 3, 2: 119-194
- 1955. Entomologische Miscellen. II. Folge. Pfälz. Heimat Speyer 6(2): 65-69
- -- 1955. Polistes der Bayerischen Staatssammlung (Hym., Vesp.). Mitt. Münch. ent. Ges. 45: 379-392
- -- 1956. Blattwespen aus Iran. Mitt. Münchner ent. Ges. 46: 322-326
- 1957. Neue nordafrikanische Blattwespen (Hym. Tenthr.). Mitt. schw. ent. Ges. 30(2): 171-174
 1959. Einen neue, bisher verkannte Blattwespe. Pontania Kirchneri n. sp. Pfälz. Heimat Speyer 10(1): 22-26
- 1961. Zur Wespenfauna der Pfalz. 1. Ergänzung. Mitt. Pollichia pfälz. Ver. Naturk. Nat. Schutz, Bad Dürkheim
- N. F. **3**, 8: 181-191

 1963. Ein Beitrag zur Biologie des *Metallus* (*Entodecta*) *gei* Brischke. Entomologische Miszellen VI. Pfälz. Heimat Speyer **14**(4): 145-148
- Zombori, L. 1981. The European genera of Selandriinae and Dolerinae (Hymenoptera: Symphyta, Tenthredinidae). Acta zool. Acad. Sci. Hung. 27(3-4): 443-45.